

A

POLITICAL SURVEY
OF
BRITAIN.

VOL. I.

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A
POLITICAL SURVEY
OF
B R I T A I N:

BEING
A SERIES OF REFLECTIONS
ON THE
SITUATION, LANDS, INHABITANTS, REVENUES,
COLONIES, AND COMMERCE OF THIS ISLAND.

INTENDED TO SHEW

That we have not as yet approached near the Summit
of Improvement, but that it will afford Employment
to many Generations before they push to their utmost
Extent the natural Advantages of GREAT BRITAIN.

IN FOUR VOLUMES.

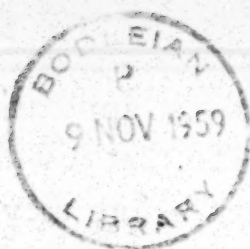
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T H E
P R E F A C E.

THE Contemplation of a magnificent structure and of an extensive work are objects exceedingly pleasing to the Imagination. Plans of both may without much difficulty be sketched out, and if these are so fortunate as to meet with approbation, the prospect becomes more flattering, and the execution seems the more easy. In a little time however a new and a very different scene presents itself. The construction in both cases is found full of difficulties unexpected, and embarrassed with impediments that were unforeseen, all requiring much thought and labour to remove. Sometimes the necessary materials are wanting, sometimes those that had been procured are discovered to be defective, sometimes this happens after they have been employed, when it becomes necessary to look out for fresh and to build anew; sometimes they lie at a great distance, and often depend upon others, which of course occasion frequent disappointments and unavoidable delay. To all this the poor architect hath nothing to oppose but patience and perseverance, supported by the consciousness of the rectitude of his own intentions, and of his proceeding with all the expedition that under such circumstances is in his power. Happy if at last his

endeavours meet with a favourable reception, and the public are disposed to afford their sanction to the pains and toil he has taken to merit their esteem, the hopes of which alone supported him in the execution of his task.

IN the first book the basis of this work is established. In that an enquiry hath been made as to the natural advantages from which some countries have been rendered fertile, and their inhabitants prosperous and potent, and into the causes why others have either never risen into such consequence, or have quickly declined. These principles being supported by facts, and from thence recommended to the reader's judgment, the natural prerogatives of these islands have been largely examined, their excellencies pointed out, confirmed by instances perfectly well known, and as occasion offered some new improvements suggested. If in respect to these we had been less explicit, or not attentive in bringing proofs for every thing that is advanced, the remaining part of this performance would have been sometimes doubtful, and frequently obscure. But the reader being previously acquainted with these matters will be able to apply them without difficulty, so as to prevent the necessity of repetitions and digressions which might have embarrassed the subsequent subjects of which we treat. In this book all imaginable pains have been taken to shew that all things essential to the welfare and grandeur of a people, the inhabitants of these islands have in their power; and that if their numbers should be greatly increased, which, considering the extent of our empire, is a thing much to be wished; there are no grounds to apprehend their want either of subsistence or employment. We have been particularly copious in respect to the less known or at least less considered dependencies on these islands, that by making their consequences appear they might be thought worthy of more notice for the future, and this the rather, because the bringing them into a closer connection with our two great islands would prevent the emigrations of their inhabitants from necessity, and thereby increase the body of the nation by an accession of active and industrious subjects, which is a point of
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the highest political importance, and which, from a variety of circumstances, we have reason to think will appear more and more manifest every day.

THIS broad foundation being thus laid, we have proceeded to a more minute inquiry into the extent of this country, and to render this more useful and satisfactory, to compare it with the other great states of Europe, in order to shew, that with the advantage of our insular situation, we have just grounds to presume, that by a prudent and steady management we may be able to sustain that wide expanded empire which Providence hath been pleased to bestow. A cursory discussion of the native commodities, the productions which skill and industry have drawn forth, and the means by which all these may be preserved and improved, became our next care. In treating these subjects we have been peculiarly attentive to the numerous helps and instruments that science, supported by public spirit, hath furnished, for promoting the skill and rewarding the toil of our people, so as to render their emoluments equivalent to their pains. The various states of this country in different periods have been brought to the reader's view, and their causes traced through the different modes of government which in those different periods have prevailed. The gradual growth of our present excellent constitution hath been explained, or at least endeavoured to be explained, its beneficial consequences described, and the reasons shewn why we may hope it will continue for ages, and during its continuance be productive of the like good effects. This is chiefly founded in the rendering it evident that the happiness of the people is and must be its primary object, and that while they are true to their own interests, it must from thence remain unshaken and secure. In this difficult undertaking we have directed our course not by any pre-conceived political system of opinions, but by the evidence afforded us by facts, considering public blessings, and the flourishing state of the community as the essential and incontrovertible marks of a good government, and much more to be relied on than any speculative sentiments whatever.

As a very noble and shining instance of that prosperity which hath attended the full establishment of our free constitution, we have laboured to give a comprehensive, though a succinct account of our possessions, colonies, and settlements in all the different parts of the globe, and to shew how far they have contributed to the grandeur and opulence of the British empire. A subject in itself equally pleasing, entertaining, and instructive, as it proves the influence of commerce and maritime power, by which dominions so extensive and at so great a distance have been acquired and united to us by the ties of mutual interests and a reciprocal communication of benefits, whereas other great empires have been usually founded in violence, and the success of armies from whence they carried in themselves the seeds of their own destruction from the natural repugnance of human nature to a slavish subjection, from which the subjects of Britain wherever seated are free. This naturally leads to the consideration of our foreign commerce, the interior trade of the kingdom, and those different navigations which are, and must ever be, the support of our maritime power, as that is of our empire. These we have carefully endeavoured to render as plain, distinct, and obvious as possible, that it might clearly appear we have not over-rated either the advantages of our insular situation or their effects in securing to us all the benefits that can be derived from the different branches of traffic that human wisdom hath hitherto been able to devise. This is a concise account of what hath been attempted in a Political Survey of Britain: An attempt in which, on the plan here pursued, we had no guide, though many helps and informations, without which, whatever it may be, it could never have been performed, and for which, where it was in our power, and we were permitted, we have paid our grateful acknowledgments, and must rest all our hopes on the Reader's candour, and the consideration of the numerous and great difficulties that necessarily lay in the way of an undertaking of such extent, and which, as might be easily shewn, was both altering and extending while in our hands.

IN a work, which from its nature, required the investigation and discussion of such a variety of arduous and difficult subjects, it would be very great presumption to suppose that the author, in spite of all his care and attention hath not committed a multitude of mistakes, which, no doubt, will appear to such as are better acquainted with particular subjects, than he is or pretends to be; this put him under the necessity of applying to the candour of the judicious reader, and this flatters him with the expectation, that his appeal will not be in vain. In proportion as men are judicious, they are usually impartial and compassionate, disposed to excuse involuntary errors, and those mistakes that arise without any ill design. The truth is, that such an attempt was almost beyond the reach of any one man's abilities, of which none could be more conscious than himself. If it should be asked, Why then did you undertake it, or persist in your undertaking? To this it is ingenuously answered, from a full conviction, that a work of this kind might be of the greatest public utility, and that it had better be imperfectly performed than not performed at all. The sense of this he expressed when he offered his proposals to the public, and the kind reception they met with leaves him no room to doubt that his imperfections, whatever they may be, will not cancel the only merit to which he pretends, that of having a studious regard to truth, and as far as his understanding could direct him, to the public good.

IT may be expected that he should make some apology for so long a delay; but the principal part of his defence in that respect is already couched in the first paragraph of this preface. He also hopes it will be considered that the most interesting war in which these kingdoms were ever involved broke out while he was writing, and that it was impossible to finish several parts of this work till that war was happily concluded by a peace. He may also plead that in such a period so many and so great alterations perhaps never occurred in our concerns, to which it was likewise his duty to pay a due regard. He may add to all this, that it was equally his wish and his interest to have finished it sooner, but he trusts that
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many circumstances in the book itself will shew, that for the sake of obtaining necessary informations he was frequently constrained to delay. It is the favourite labour of his life, and he hopes that indulgence which upon other occasions he hath so frequently and gratefully experienced will be likewise extended to this, and thereby render the evening of his day serene.

T H E

T H E
P O L I T I C A L S U R V E Y
O F
G R E A T B R I T A I N .

B O O K I .

C H A P T E R I .

THE great object of true policy is, to render the society as happy as the situation and circumstances of it will allow. This proves no very easy task, where many advantages seem to concur; Yet is not impossible, even where those are in some measure wanting. These truths best illustrated by facts, as delivered to us by history. Grandeur, opulence, order, magnificence, and happiness of the ancient inhabitants of Egypt. Fate of that country; variety of masters; still retains the vestiges of better times. Chinese held by some very judicious men to be descended from the Egyptians. There is a very great resemblance in the principles of government in these nations, and no less in their conditions. The ruling maxim of both countries the same: viz. universal obedience to the laws. Spain in ancient times a very fruitful country, inhabited by a numerous, brave, and industrious people. Now, thro' the inordinate ambition of its Monarchs, become poor, thinly peopled, and the shadow of what it once was. Italy, the garden of Europe, and full of plenty, when under a right form of rule. The past and present condition of the republics in that country described. The nature and circumstances of the Helvetic body, and the territories they possess. Highly improved, exceedingly populous, and, comparatively speaking, very rich. The cause of the grandeur and wealth of the low countries. The manner of their fall, and the consequences. The wonderful rise and progress of the Dutch republic. The true causes of their firm establishment, and rapid advancement. Some of their capital maxims. The use of these historical representations. A sketch

of the points of greatest importance in national and genuine policy. Infinitely preferable to those intrigues which in the present age usurp this title.

THE moderns, in exalting the quality, have strangely debased the nature, of POLICY, by using that term to express intrigues of state, the secrets of the cabinet, or the skill of managing affairs in a court; which consequently implies great impertinence in private men, to meddle uncalled, in such business; and that superior parts, and peculiar genius, are requisite to such as are initiated into these mysteries. But the original meaning of the term, and what may be stiled its genuine signification, is, the art of ordering all things for the common benefit of the citizens in a free state; which plainly leaves every man at least the liberty to study it, if, as occasion serves, it does not prescribe it as a duty; the will or intention of doing which, is what we call PUBLIC SPIRIT (a). The perfection of POLICY, considered in this light, and I mean to meddle with it in none but this, is so to improve the natural advantages in the possession or in the power of the society to which it is applied, as to make all without distinction, who compose that society, as happy as it is possible; and to place this happiness on the firmest basis, so as that neither the ever-mutable tempers of men, or the inevitable vicissitudes of time, should affect it (b). We know, that in this world perfection is not to be attained; but it ought notwithstanding to be aimed at, because, without keeping this unattainable perfection steadily in view, we cannot proceed far in what is to be attained; and for this purpose, perhaps, Providence indulged to us such an idea (c).

WHERE a country is favourably disposed, in respect to sun and soil; where her productions are equally numerous and valuable; where inhabitants abound, and all things seem to promise plenty and grandeur; we should suppose that small skill might suffice, and that, with the exuberance of the golden age, its innocence also would return, and mankind enjoy abundance, with little labour, and an happy state of tranquility, almost without laws. But experience shews quite the contrary. The finest countries are often desarts; Nature's indulgence is frequently neglected; and those, who might, with a little attention, be the masters, at least the envy, become, thro' their own omissions, the subjects or the scorn of their wiser, and of consequence their happier neighbours (d). In the most fertile, in the best situated countries, prudence is rather more requisite, than where these blessings are wanting; since, in such, necessity supplies her place, and, tho' a harsher, is frequently found to be a mistress better

(a) Aristotelis Politicorum, lib. iii. cap. 1. et lib. vii. cap. 1.—(b) Cicer. de Leg. lib. iii. de Finib. lib. v. Senec. de Clement. lib. i.—(c) Cicer. de Offic. lib. ii. 85, 86. Epist. ad Quint. i. Lamprid. in Alex. Sev. cap. 45.—(d) Herodot. lib. i. Justin. lib. ii. cap. 13. Salust. Oratione i. de Republica ordinanda.

obeyed. It is with nations, as with private men: those who set out with the amplest stock, and the fairest prospect, do not always meet with the greatest success; tho' generally this, in both cases, springs from their own fault (*e*). Plenty may be very easily abused; and as it is an old, it is also a very just maxim, that whenever the best things are corrupted, they become the worst. It is from hence, that in whatever country, blessed with advantages by nature, the inhabitants once degenerate, they are rarely, if ever, recovered out of that low and despicable state, but remain, like monuments of self-wrought misery, set up by Providence, for the information of the rest of mankind (*f*).

BUT in places where the common necessities of life are hardly obtained, where the soil is ingrateful, and the climate scarce tolerable, it should seem that even wisdom, at least human wisdom, could do little, except suggesting the short measure of quitting the place. However, we plainly see this is not so. Such countries as these, or at least such as have been in this condition, are so far from being uninhabited, that they swarm with people, who, by a due exercise of their heads and their hands, remove, or at least qualify, all hardships, procure unlooked-for conveniences, improve what seemed incapable of any improvement, invent, vary, and adopt foreign inventions, till, in the close, they so far alter their own condition, and in doing this that of their country, as to leave us no evidence but history, compared with the lights of reason, to shew what they and it once were (*g*). Amongst such nations, the maxims of that prudence, by which they are directed, strengthen in a course of years into habits, and serve to maintain that beautiful structure, which, when first practised, they raised. Thus governments springing out of common distress, and which receive their original confidence from the concurrent necessities of their subjects, proceed slowly; but resist all opposition, knit closely, and become gradually so compact, as to defend themselves better against time and accidents, than empires established in finer countries, quicker in growth, and much more promising in appearance (*h*). Luxuriant plains produce trees for shade; but on the bleak mountains rise the pine, the oak, and the cedar (*i*).

THUS then it appears that policy, which is the common sense of government, or rather common sense applied to government, is every-where requisite, serving in some nations to restrain, in others to excite, in all to methodize and direct, the endeavours of a nation (*k*). But to understand this thoroughly and practi-

(*e*) Cicer. pro Rosc. Amer. ii. 75. Valer. Max. lib. ix. Sil. Italic. lib. xv. Bell. Punic.—(*f*) Justin. lib. xxxvi. cap. 4. Claudian. lib. iii. in Stilicon. laud. Machiavel. de Republica, lib. i. cap. 17 et 55.—(*g*) Tacit. de moribus Germanorum. cap. ii. Simler. de Republica Helvet. Sir William Temple's Observations on the Netherlands.—(*h*) Ritratti della Cosi d'Alemagna, di Nicolas Machiavelli. Georgii Hornii Ulysses peregrinans, lib. i. Burnet's Letters.—(*i*) Evelyn's Sylva, book ii. chap. 2, 3.—(*k*) Aristot. iv. Ethic. cap. 5. Demosthenes, Orat. 1. contra Aristog. Cicer. iv. ad Herennium.

cally, the best way is to consider the evidence of facts, which, of all others, affords the clearest, soundest, and most imitable instruction, as proposing nothing to our attempt, but what others have accomplished. We learn from thence, in the most pleasing and in the most convincing manner, from our own observations and reflections (*l*). We are apt to doubt the validity even of the most connected reasonings, when they do not concur with our own notions, and to esteem them at best but probable conjectures. Experience is a more prevailing guide; she brings her witnesses with her, whom we may examine in the strictest manner; and, when we have their concurrent testimonies, we cannot refuse our assent (*m*). We know, that the powers and abilities of mankind are nearly the same in all countries, and therefore cannot dispute, that what they have been able to effect in one place, they may likewise bring about in another.

THE most celebrated nation among the ancients, in point of wisdom, power, and manners, were the Egyptians; and they were deservedly famous in all respects. The country of Egypt derived great advantages from nature; but her earliest inhabitants had been very miserable, if they had not derived many more advantages from art (*n*). The Nile was their only river; and its annual overflowings, instead of a blessing, might have been a curse, if the rulers of this country had been less attentive and sagacious than they were, or the people less obedient. All the cities and towns were placed upon eminences, raised by the labour, and disposed by the prudence, of man. The waters were conducted to them by canals, from whence, at the proper season, the whole flat country was flooded; but to a proper degree only, and for a proper time (*o*). Many fine cities were erected at convenient distances, strong fortresses covered their frontiers, ports were opened on the Mediterranean and on the Red Sea; there was nothing so extensive as their commerce, except their reputation (*p*). Their laws were very severe, but they were excellently contrived; and their kings observed them as punctually as the lowest of their subjects. If a citizen was injured, the constitution armed every citizen for his defence; and a malefactor, as soon as he became so, had for his prosecutors the whole nation (*q*). Every man had his calling and his residence assigned; so that none knew how or where to be idle. They had laws to discourage borrowing; but the law first provided, that there should be plenty (*r*). They had armies, and

(*l*) Aristot. i. Rhetor. cap. 5. Diodor. Sicul. Biblioth. lib. i. Polyb. Hist. lib. i.—(*m*) Plutarch in Timoleonte. Liv. Hist. lib. i. Istorie Florentine di Nicol. Machiavelli, lib. viii.—(*n*) Herodot. lib. ii. Strabon. Geograph. lib. xvii. p. 787. Voyages de Thevenot.—(*o*) Herodot. lib. ii. Diodor. Sicul. Biblioth. lib. i. Plutarch. de Fac. in Orb. Lun.—(*p*) Strabon. Geograph. lib. xvii. Diod. Sicul. Biblioth. lib. i. cap. 5. Euripid. Troad.—(*q*) Herodot. lib. ii. Diodor. Sicul. Biblioth. lib. i. Plat. in Tim.—(*r*) Herodot. lib. ii. p. 62. Diodor. Sicul. Biblioth. lib. i. cap. 6.

they were well disciplined; but they acted chiefly on the defensive. The Egyptians were known to foreigners by their colonies. They sent their people abroad to propagate science and morals, not to confound or destroy (*s*). This great empire subsisted sixteen hundred years. It fell at last! ambition, luxury, and faction, were the causes of that fall, from which it never recovered (*t*).

THO' the nation was thus enslaved, and spent her little remaining strength in fruitless endeavours to regain her liberty, when she had lost her virtue, yet all the natural and acquired advantages of the country remained to the conquerors, and Egypt was the principal jewel in the Persian diadem (*u*). It was the favourite province of Alexander, when his flatterers stiled him the master of the world (*w*). Ptolemy Philadelphus, the most famous of the Greek monarchs who ruled here, kept up an army of three hundred thousand foot, and twenty thousand horse, exclusive of the greatest maritime force the world could then boast; erected cities; made new havens; lived in prodigious splendor and magnificence; and yet left upwards of one hundred and ninety millions sterling in his coffers at his decease (*x*). His successors were first vanquished by luxury, and next by the Romans. Egypt became then the staff of that empire, as it afterwards was of the Greeks, while they held with the like title Constantinople (*y*). It fell, through their ill management, into the hands of the Saracens; and, after being subject to two Dynasties of Mamalukes, was at length conquered by the Turks, in whose power it now is (*z*). In spite of a succession of barbarous masters, it still retains the vestiges of its ancient grandeur, and appears majestic even in ruins (*a*). Those ruins, that bear incontestible evidence to the truth of ancient history, and leave us without scruple, as to the veracity of what is recorded of the wisdom of its ancient princes, and the amazing docility, and yet more amazing industry, of their subjects (*b*). This country of wonders, this primary seat of science, arts, and commerce, excelling all other lands in plenty, and in number of inhabitants, in point of extent is not altogether twice as large as Britain.

SOME of the most judicious among the learned have supposed, that the Chinese are descended from the Egyptians. Tradition, similarity of manners, and the events that have happened to both governments, strongly favour this conjecture (*c*). One of the

(*s*) Strabon. Geograph. lib. xvii. Pompon. Mela, lib. i. c. 9. Tacit. Ann. lib. ii.—(*t*) Herodot. lib. iii. Diodor. Sicul. lib. xi. Strabon. Geograph. lib. xvii.—(*u*) Herodot. lib. vii. p. 167. Diodor. Sicul. lib. xv. c. 11. Xenophon.—(*w*) Diod. Sicul. Biblioth. lib. xvii. Strabon. Geograph. lib. xvii. Plutarch in Alexandro.—(*x*) Appian. Alexand. in Præfat.—(*y*) Cod. Theodof. lib. xiii. tit. 5. leg. 32.—(*z*) Elmacin. Hist. Saracen. lib. ii. cap. 16, 17. Pocockii Supplementum Hist. Dynast. p. 29.—(*a*) Petri Bellonii Observationes. P. Vansleb, nouvelle Relation d'un Voyage fait en Egypte en 1672 et 1673. Voyages de Thevenot, Lucas, &c.—(*b*) Melton, Kircher, Maillet, Shaw, Pococke, Templeman's Survey.—(*c*) Huet, Histoire du Commerce et de la Navigation des Anciens, chap. x.

darkest points of the Egyptian history, is the expedition of Osiris, or Bacchus, into the Indies. The origin of the Chinese cannot well be more obscure (*d*). The spirit of the laws, in both countries, is precisely the same, being calculated to regulate even the minutest actions of man, to promote industry, to preserve justice, and to place the majesty of the empire in the happiness of the subject, rather than in foreign conquests (*e*). If there was a defect in the Egyptian policy, it lay in their militia: They were fine troops, exactly disciplined, ever ready for service; but when they came to action they wanted spirit. This is the case of the Chinese: They should be soldiers, and they are machines. But in both countries the frame of the constitution has been so admirable, that they have changed masters without changing their customs: so the Ethiopian monarchs ruled Egypt; so, at this day, the Tartars govern Chinâ, masters of the people, but submissive to their laws (*f*).

At this day China is, in a great measure, what Egypt was; and this from the same causes, and from a strong resemblance in the nations. The Chinese are, from their very infancy, trained to industry and labour: such principles as are necessary to the well-being of society are so inculcated from their childhood, as, when they grow up, to strengthen into habits (*g*). Personal merit is the only road to preferment, and the sole title to nobility. The welfare of the people is the declared object of the government; and there are so many seen and unseen checks upon the administration, that no great error can pass without notice, no crime of any magnitude remain long unpunished. The Emperor himself is accountable, because he prefers, to the pomp and pleasures of the imperial dignity, his reputation. Where every man does his duty, every thing will prosper. The provinces of China are in the most flourishing condition; their lands exactly cultivated; even their mountains disposed into terraces, and the rocks themselves scarce suffered to be barren; public roads every-where kept in perfect order, at the public expence; canals so judiciously disposed, that the most distant parts of the empire correspond by water-carriage; colleges, bridges, triumphal arches, and whatever regards the publick, stable and stately; while neatness and convenience characterize private dwellings. Our European traders reproach these people with fraud, timidity, and treachery: but as they converse only with the scum of a trading town, it is unfair, from such a sample, to judge of a great nation: And besides, these are drawbacks; for, without doubt,

(*d*) Herodot. lib. ii. p. 46, 64. Diodor. Sicul. lib. i. cap. 2. Strabon. Geograph. lib. xi — (*e*) Marci Pauli Veneti, Relat. de Regionibus Orientalibus. Gruberi, Tartarica et Sinica. Adr. Mulleri, de Sinenſium rebus Epistola. — (*f*) Histoire de la Conquête de la Chine par les Tartares, traduite de l'Eſpagnol de M. de Palafox — (*g*) Tratados Historicos, Politicos, Ethicos y Religioſos, de la Monarchia de China, con deſcripcion breve de aquel Imperio, y exemplos raros, de Emperadores y Magiſtrados en el, por Domingo Fernandez Navarette. Madrid, 1676. Folio.

such qualities cannot either recommend them, or conduce to their prosperity. Domestic commerce, that is, the trade carried on between the several provinces and dependencies of this empire, is the great source of its wealth, and a due distribution of that the cause of universal plenty (*b*). But then China is fifteen times larger than Great Britain and Ireland; and, tho' not half the size of Europe, contains full as many people (*i*).

THESE empires are mentioned, not only from the notoriety of the facts that regard them; but because, in reality, there are scarce any other, at least of tolerable extent, that can be mentioned as instances of a judicious and successful policy, under which the country has been fully peopled, compleatly cultivated, and mankind made happy, or at least furnished with the means of being so, as far as the means of happiness regard this life. Before we draw nearer home, it may not be amiss to insist on one circumstance common to the Egyptian and to the Chinese constitution, and which may possibly be considered as the secret spring keeping these great machines of government in motion. Amongst the former it was, amongst the latter people it is, an inviolable maxim, that their laws shall be known and obeyed (*k*). There are no such things as dormant statutes, different and perplexed institutions, some prevailing here, and some there, but one uniform plan of government pervades all, is universally understood, devoutly revered, and generally practised.

It is not easy to conceive a monarchy more compact, or a country better situated, than Spain; surrounded on three sides by the ocean and the Mediterranean, fortified on the fourth by the Pyrenees (*l*); seated in an excellent climate, finely diversified with mountains and valleys, producing useful and valuable commodities, and in every part open to commerce. In ancient times, when divided into many principalities, the inhabitants of this country were brave, were rich, and numerous, defended themselves gallantly against the Carthaginians and Romans, were esteemed even by their conquerors, and celebrated for their virtues by their historians (*m*). In later ages the Gothic monarchy in Spain was extremely flourishing and potent, till it fell by its own weight, that luxury which wealth introduced, and that corruption of morals which naturally attends it (*n*). Yet nearer our own days, when divided into many Christian and Moorish principalities, the whole was thoroughly peopled, and fully cultivated, and was, in all respects, one of the richest and most fruitful countries in Europe. If we read the history of the wars

(*b*) P. le Comte, *Memoires de la Chine*, vol. ii. let. r. Description of China by Dionysius Kao, a Native of that Empire, in *Harris's Voyages*, vol. ii. p. 988. P. du Halde, *Description de l'Empire de la Chine*, tom. ii. p. 172, 186.—(*i*) Templeman's Survey, pl. 23.—(*k*) Herodot. lib. ii. Diod. Sicul. lib. i. Plat. de Legibus, lib. ii. Navarette *Tratados historicos, &c. de la Monarchia de China*, lib. ii. c. 3.—(*l*) Cellarius, Cluverius, Luyts in *Hisp. Descript.*—(*m*) Strabon. *Geograph.* lib. iii. Tit. Liv. *Hist. Rom.* ap. Roder. Sant. Justin. *Hist.* lib. xlv.—(*n*) Rodericus Toletanus, de *Rebus Hispanicis*. Vassus, in *Chron. Hisp.* Caribay.

of Granada, we shall stand amazed, to find what mighty forces were in the field on both sides, tho' the provinces under the dominion of the crown of Arragon took no share in the quarrel (*c*). While this war lasted, America was discovered; since which period more gold and silver have been poured into Spain, than ever came into any other part of the world (*f*).

BOUNDLESS power, and immense treasures, inspired the princes of the house of Austria with an ambition fatal to themselves and to their subjects. Unsatisfied with the greatest empire that perhaps men ever governed, and believing supplies derived from the mines of America to be inexhaustible, they kept nothing in view but the gratifying their own passions, to which, tho' coloured with many specious pretences, without scruple, they sacrificed the interests and the lives of their subjects (*g*). In consequence of this, Spain is no longer what it was; the bulk of the inhabitants are lazy, poor, and proud; the country itself deformed, as well as depopulated; sands and deserts, where formerly grew the most luxuriant harvests; and there is not now, in the kingdom of Granada, a spot of ground, however favourably situated, so rich and fertile as the most rocky and inaccessible mountains were in the time of the Moors (*r*). There is no doubt that the expulsion of this nation who were naturally frugal and industrious, was one great cause of this revolution. The multitudes that have transported themselves to America is said to be another. More penetrating judges always thought otherwise; and the Spaniards themselves are now of that mind, convinced by a point of fact, that the provinces privileged to send people to America are the most populous, and that such as have not that privilege, the most thinly inhabited of any in Spain (*s*). The true causes are, that the number, the weight, and the perplexity of taxes, in a great measure destroyed their manufactures: this, to avoid starving, drove away multitudes of people, which unavoidably lessened the consumption of corn, and other necessaries, and by discouraging agriculture, rendered many fine provinces deserts. From these disasters their commerce was entirely changed; foreigners of different nations supplied them with all kinds of necessaries, and coming at certain seasons, reaped their small harvests, did other laborious work, and in return received hard silver, which the Spaniards could not eat, drink, or wear (). To these may be added, the excessive power and revenues of the clergy, the severity of the inquisition, the perversion of justice, the obstinacy of the court in pursuing foreign

(*c*) Mariana, Turquette, Ferreras.—(*f*) Moncada, Navarrete, Ustaritz.—(*g*) *Memoires de la Cour d'Espagne*, vol. ii. p. 193. Vayrac, *Etat present de l'Espagne*, tom. i. liv. 1. *History of Spanish America*, p. 294, 295, 296.—(*r*) *Voyage de l'Espagne*, p. 365. D. Diego de Sazvedra, *Idea de un Principe Politica Christiano Empr.* LXVII. Vayrac, *Etat present de l'Espagne*, tom. iv. liv. 6.—(*s*) Ustaritz, cap. xii, xiii.—(*t*) *Causes of the Decline of the Spanish Monarchy*, p. 193. *Dictionnaire de Commerce*, tom. ii. col. 315. *Etat present d'Espagne*, chap. i, xx.

objects and interests, while they neglected those of Spain; causes clearly adequate to the consequences ascribed to them, and which will certainly have the same effect in other countries that we see they have already had in this (*u*). In point of extent, Spain is about thrice as big as South Britain, though the latter is above four times as populous as the former, all circumstances considered (*u*).

ITALY, the garden of Europe in point of situation and soil, once the seat of empire, afterwards the nurse of arts, when they revived in the West, the mother of manufactures and of commerce, what was, and what is her condition! While she enjoyed liberty, or was governed by wise princes, who consulted the welfare of their subjects, she was either the mistress or the envy of her neighbours: but when both the eastern and western empires decayed, and this noble country came to be divided into a variety of dominions, and those of different kinds, she experienced, as was natural, diversity of fortunes. Under commonwealths tolerably constituted, all her natural advantages appeared in their former lustre (*x*). But when luxury corrupted these, or when factions opened the way to tyranny, all was thrown again into confusion, and not the cities and people only, but the very country suffered. The best part of the territories of the church, from fruitful and pleasant plains, are become sterile and noisome marshes (*y*). Tuscany, the beauties of which enchanted Hannibal, is no more what it was, but a rude mountainous region, that here and there however seems to resist this change of fortune, and gives evidence to the truth of ancient story, by shewing what might still be done if under an equal government, and thoroughly peopled (*z*).

WHAT are the republics of Italy, in their modern state, to what they were anciently? What is the present state of Venice, to that which formerly held not only the trade, but the sovereignty of a great part of the Archipelago, and was mistress of islands that had borne the title of kingdoms (*1*)? What is the Genoa of our times, compared with that republic which furnished such mighty fleets against the infidels, and possessed part of Crim Tartary, a country despicable in its present condition, but capable of making as great a figure as any in the world, and where the ruins of marble palaces, built by the Genoese, are ex-

(*u*) Montesquieu de l'esprit des Loix, liv. xxi. chap. 18. Wood's Survey of Trade, p. 75. Ufartitz, cap. iii. v.—(*w*) Templeman's Survey, pl. 8.—(*x*) F. Leandro Alberti, descrizione di tutta Italia. M. Zeilleri, Itinerarium Italiae.—(*y*) Luyr's Introduc. ad Geographiam, sect. 2. c. 18. p. 181. P. Labat, Voyage d'Italie, tom. vii. p. 43. Sir P. Skippon's Travels through Italy, in Churchill's Collections, vol. vi. p. 646, 647.—(*z*) Ray's Travels, vol. i. p. 289, 290. Grondeen en Maximen van de Republieck van Holland, iii. deel. cap. 3. Bishop Burnet's Travels, Letter iii.—(*a*) Historia della Città e Republica di Venetia, di Paolo Morosini, 1637. Mifson, Voyage de Italie, vol. i. p. 179. Addison's Travels, in his Works, vol. ii. p. 32.

tant at this day (*b*)? What is the condition of other cities that were once free? Florence has not, at this hour, two-thirds of the inhabitants that were carried off by a plague four hundred years ago, without leaving it desolate (*c*). Genoa, fallen as she is, enjoys more wealth, in virtue of having more industry, shewn by her having more manufactures than any other state; and though Liguria be naturally the poorest country in Italy, yet, even now, it is the best cultivated; and, for its extent, produces most (*a*). Lucca, the smallest republic of all, preserves her liberty, and that form of rule which consults the common benefit of all the citizens (*e*). In consequence of this, its narrow dominions are extremely populous, and the inhabitants enjoy peace and plenty. Why do not the rest? Because their constitutions are altered; taxes have broken the spirits of the people; idleness has taken the place of industry; superstition, under the name of religion, makes thousands of both sexes useless, and burthensome; indolence has rendered the people effeminate; and usury has supplanted commerce (*f*). Italy, exclusive of the islands dependant upon it, is not bigger than the isle of Britain (*g*).

IN the vicinity of Italy, and sometimes esteemed as a part of it, lies Switzerland, a country, the description and inhabitants of which are very little known here, except to such as have travelled; and yet there is no country or people upon the globe that have a better title to be known (*b*). The air is pure, but the climate is rather austere than inviting; the face of the country, at least a great part of it, rough and mountainous, and the soil none of the most grateful; seated at a considerable distance from the sea, with potent nations on every side between it and the ocean: yet, with all this, it has its advantages, which however had never been discovered, but in consequence of the inhabitants recovering their liberty in the beginning of the fourteenth century (*i*). At present, the thirteen Swiss Cantons, the Grisons, their allies, the stipendiary cities, and their subjects, are a very formidable people, and compose what is stiled the Helvetic body. This is a confederacy of the most perplexed kind; for it is not only made up of many different republics, each possessed of sovereign authority in its own little territory, and those republics too of different religions; but so various also in the form

(*b*) Relation du Sieur Ferrand, touchant la Krimee, &c. Sir Philip Skippon's Account of the States of Italy, Addison's Travels, p. 7.—(*c*) Martinelli, *Istoria Critica della Vita civile*, cap. 9.—(*d*) *Histoire de la Republique de Genes*, 1696. 12°. *Dictionnaire de Commerce*, tom. ii. col. 490, 491. Addison's Travels, p. 6, 7.—(*e*) Ray's Travels, vol. i. p. 221. *Dictionnaire de Commerce*, tom. ii. col. 502. Gronden en Maximien van de Republieck van Holland, iii. deel. cap. 3.—(*f*) Hoffman, de Republica, lib. vi. cap. 17. Addison's Travels, p. 7. Martinelli, *Istoria Critica della Vita civile*, cap. 9.—(*g*) Templeman's Survey, pl. 9.—(*h*) M. Zeillari, *Topographia Helvetiæ*, &c. *Delices de la Suisse*, a Leyde, 4 vol. 12°. Ray's Travels, vol. i. p. 375, 376.—(*i*) Plantini, *Helvetia antiqua et nova*, Bernæ 8°. *Abregé de l'Histoire des Suisses*. Bishop Burnet's Travels, letter i.

of their governments, that it would demand a very able head, and require a very considerable volume, barely to describe them. In this they all agree, that their citizens enjoy a large proportion of liberty, with perfect security, at a small expence (*k*).

UNDER these governments, this country has been improved to a miracle. Where the lands are fertile and happily situated, as in some places they are, they have been cultivated with the utmost skill and success; no labour is spared, no art left untried, to meliorate the most ungrateful (*l*): The very mountains, where-ever it is possible, are improved to their summits; corn, wine, oil, silk, flax, and cotton, are produced in different parts of their territories, and vast quantities of the two last commodities are brought in, from other parts, to be manufactured by their subjects. These manufactures again, are dispersed to different parts of Europe, for which the situation of their country is extremely proper, as it lies encompassed by Germany, Italy, and France, and may be said to have a communication with the ocean and the Mediterranean by the rivers Rhine and Rhone (*m*). Several great lakes facilitate the inland navigation, and these together with every rivulet, are turned to some advantageous purpose. In no part of the known world are the people, in general, more esteemed for their courage, candour, and fidelity, than here: industrious in the highest degree, very ingenious, more especially in all their manufactures; distinguished by their probity in their dealings, and owing the fortunes they acquire in trade, rather to length of time and constant frugality, than great profits (*n*). This country being, as we may easily suppose, much over-peopled, a great part of their youth are bred to arms; but, instead of suffering this martial turn to disturb either themselves or their neighbours, they let out their troops by capitulation, which brings various and great emoluments to the nation; these distinguish themselves in the German, Spanish, Sardinian, Sicilian, and Dutch services, but more especially in the French, where they have always made the flower of the infantry, and, exclusive of very high pay, enjoy all the privileges of natives as the reward of the important, and indeed inestimable services, which in civil as well as foreign wars, they have rendered that crown (*o*). This whole country is not above a sixth part as large as the isle of Britain; and the canton of Bern, which is not more than half as big as Yorkshire, is able to bring into the

(*k*) Thesaurus Historiæ Helvetiæ, Tiguri, Fol. Histoire de Geneve par M. Spon. 4 vol. 12°. Present State of Swisserland.—(*l*) Heylin's Cosmography, p. 134. D'Audiffret Geographie ancienne et moderne, tom. ii. p. 579—630. Mémoires de Bruys, vol. i. p. 99.—(*m*) Luyt's Introd. ad Geographiam, p. 136—147. Johnson's Relations of the most famous Kingdoms in Europe, p. 203. Du Bois, Geographie Moderne, vol. i. p. 223.—(*n*) Dictionnaire de Commerce, tom. ii. col. 304. Sir Philip Skippon's Account of the States in Italy. Addison's Travels, p. 155—178.—(*o*) Dictionnaire de Commerce, tom. ii. col. 308. Johnson's Relations of the most famous Kingdoms of Europe, p. 206.

field one hundred thousand well disciplined troops, at the shortest warning (*p*).

IN our part of Europe, about the time that the Normans fixed themselves here, or it may be a little earlier, the Flemings began to alter their character, and, from being a fierce and unruly, became a civilized and commercial people (*q*). The fertility of their lands furnished them with a superfluity of commodities which they first bartered and sold to their neighbours; and then the trade of weaving being set up amongst them, their labour increased their plenty to such a degree, as drew multitudes of people into those provinces, where to facilitate this growth of inhabitants, and consequently of wealth, the sovereigns granted great privileges; so that we need not at all wonder, that states small in extent, became, in no very long space, formidable to their neighbours, where freedom and industry had produced such amazing abundance (*r*). It is true, that these countries were likewise subject to great inconveniences, which however were only such as sprang from the abuse of happiness, and consisting in popular tumults, when the fermentation subsided, things returned nearly into the old channel. The immediate causes of these disorders, were taxes imprudently imposed by their princes, or restrictions in trade, which had very bad effects, though devised by traders themselves (*s*). For, whether owing to the malignity of human nature, or to some other latent source, so it is, that traders are equally jealous of their own liberties, and ready, when they have it in their power, to circumscribe the freedom of other men.

IN process of time, and through a variety of revolutions, Antwerp became the center of the trade of these provinces, and out of comparison, the most wealthy and commercial city in all Europe. The merchants of the Hans, or confederated towns in Germany, and the North, had their staple there, and brought an immense quantity of rough and gross goods to employ the assiduity of the laborious Flemings (*t*). Thither likewise the subjects of the Italian trading states carried their finest goods, and all the rich produce of the East. There likewise we fixed our staple of wool and cloths, and, in a word, accumulation of wealth, and the concourse of merchants, produced banking; so that almost all the sovereigns of Europe had recourse to the money merchants here, and paid largely for their credit (*u*). It is in-

(*p*) Templeman's Survey, pl. 10. Ray's Travels, vol. i. p. 375. Addison's Travels, p. 167.—(*q*) Petri Kærri, Germania inferior, Amstelodami, 1722. Fol. Delices des Pays Bas, 1720, 4 vol. Grimston's History of the Low Countries.—(*r*) L. Guicciardini, Descrittione di tutti Paesi Bassi. Fol. Auberti Miræi, Rerum Belgicarum Chronicon. Heylin's Cosmography.—(*s*) Francisci Haræi, Annales Ducum Brabantii totiusque Belgii, Fol. Maline's Lex Mercatoria. Gronden en Maximen van de Republieck van Holland, i. deel. cap. 2.—(*t*) Sanderi, Chorographia Brabantica. Scribanii, Origines Antwerpiensium. Travels of Doctor Gemelli Carreri, Letter 24.—(*u*) Wheeler's Treatise of Commerce, p. 36. Johnson's Relations of the most famous Kingdoms and States in Europe, p. 128. See the article of GRESHAM, Sir Thomas, in Biographia Britannica.

credible to what a height of magnificence this city grew ; with what state the principal traders lived ; to how great a degree all the neighbouring potentates were interested in their safety and preservation ; and yet the very same spirit of avarice, ambition, and bigotry, led the same princes, who had ruined Spain, in spite of all her natural advantages, to destroy Antwerp also, and to impoverish the inhabitants of the low countries, that for a course of ages had been improving a fruitful and excellent country by all the arts of industry and commerce (*w*). These provinces, excluding the seven, which in these times were but inconsiderable, in point of extent, are about a sixth part of the isle of Britain (*x*).

THE Dutch commonwealth, or as we usually call it from the largest of its provinces, the republic of Holland, is scarce two hundred years old, notwithstanding which the world perhaps does not, or ever did, produce an instance more to our purpose. The foundation was laid in the midst of storms and tempests, and yet with great prudence and judgment. It was in effect no more than this, that in a season of religious discord and civil oppression, their governors declared such as would take shelter in these provinces, should live under a government attentive only to the good of its subjects (*y*). This promise was as steadily kept as it was wisely made ; in consequence of which, a country poor in itself, and at that time far enough from being pleasant, became in a very short space the richest, the most flourishing, and the most potent, for its extent, in all Europe. The people, or rather their governors, availed themselves not so much of natural advantages as of necessities, and by a firm and wise conduct, drew security out of danger, opulence out of distress, and the power of giving laws to, from the assistance given them by their neighbours. This we speak, not with any view of reproaching, but, on the contrary, doing honour to this people, who have certainly pushed that policy, which we are recommending, much farther than any other we find mentioned in history. (*z*). The territory of this republic, though extremely well cultivated, cannot be filed fruitful. Its meadows indeed are beautiful, and furnish pasture in abundance ; but in respect to corn it has been said, perhaps with no great injury to the truth, that all they grow will scarce maintain the labourers employed upon their dykes. Its commodities are very few ; madder, woad, and flax, are perhaps the chief. Its manufactures from home-produce, not much more remarkable ; tiles of different sorts, rape and linseed oil, fine lin-

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nen, some woollen, and silks, are the most considerable (*a*). Amsterdam, by the means chiefly of an inundation, became a port, and by the ruin of that of Antwerp, acquired a great trade. There are besides, throughout all the provinces, very few commodious havens, and those there are, stand more indebted to art, seconded by a great expence, than to nature (*b*). Yet some advantages of which we shall presently speak, these countries have, and by turning these to the best use, together with the indefatigable industry, sagacious conduct, and prudent parsimony, of the whole nation, the Dutch became what they are, or rather what they were, to the astonishment of all mankind (*c*).

THEIR natural prerogative consists entirely in their situation. As they lie pretty near the middle of Europe, they are able to carry on, with great facility, their commerce to all parts. Their fisheries, which ever owe their rise to necessity, first furnished them with able seamen; and their captures at sea, made with very small vessels at first, soon procured them shipping, which, after they embarked in a trade with the northern nations, increased continually (*d*). This enabled them to bring in vast quantities of goods, even from the most distant countries, and enabled them to raise prodigious magazines, and to take, on every side, the advantage of favourable markets. The other benefits resulting from their situation, arose from the great rivers behind them, more especially the Rhine, the Maese, the Elbe, the Weser, and the Embs, by which they supplied the greatest part of Germany, Lorrain, and part of France, with goods and manufactures, and in return took theirs, which they afterwards exported into other countries, with great profits on both sides (*e*). The Spaniards, by labouring to shut them out, obliged them to force passages into the East and West Indies; and, in order to this they erected two great companies; that, for a time at least, were equally useful to the publick, and brought in those immense supplies of wealth, which raised them from a weak and tender, to a firm and flourishing state, capable of defending themselves against all enemies, and made their alliance courted, and resentment feared, even by the greatest potentates in Europe and Asia (*f*).

(*a*) *Memoires sur le Commerce des Hollandois*, chap. ii. *Dictionnaire de Commerce*, tom. ii. col. 394. Sir William Temple's *Observations*.—(*b*) Gabriel Richardson's *Present State of Europe*, book 13. p. 29, 30. Ricard, *Negoce d'Amsterdam*, chap. 1. *L'Etat des Provinces Unies, & particulierement de celle de Holland*, 1690. 12°.—(*c*) Barclaius, in *Icone Animarum*. Sir Walter Raleigh's *Discourse of a War with Spain, and protecting the Netherlands*. *Bibliothèque ancienne et moderne*, tom. vii. p. 415, 416.—(*d*) *Discourse of the Invention of Ships, &c. with the Cause of the Greatness of the Hollanders* by Sir Walter Raleigh. *Gronden en Maximen van de Republieck van Holland*, 1. deel. cap. 6. *Memoires sur le Commerce des Hollandois*, chap. 3.—(*e*) *Dictionnaire de Commerce*, tom. ii. col. 400, 401. Ker's *Remarks on the Trade of Holland*. *Memoires sur le Commerce de Hollandois*, chap. 3.—(*f*) S. van Leeuwen, *Batavia illustrata*. *Basnage Annales de Provinces Unies*. Sir William Temple's *Observations on the Netherlands*.

As this is the last instance we shall mention, it may not be amiss to insist a little more upon it, the rather, because, in other instances at least, as much was due to the country as the people; in regard to this it is the reverse, since whatever advantages are derived from the country, are clearly owing to the people. The province of Holland, the most considerable of them all, being a dead flat, the soil moist, and in many places endangered by the sea, seemed, of all other, the least capable of being fully inhabited, with a free and constant communication between its parts. Labour however has done this; dykes, causeways, and canals, facilitate carriage more than in any other country (*g*). The humidity of the air, and the loose texture of the earth, render it unfit for great towns: but these inconveniencies are so counteracted by habitual neatness, and sound pavements, that nothing like this is either felt or seen. In the winter, it is true, their ports are blocked up, their rivers frozen, and the whole country exposed to a severity of weather, with which our own, though in the same latitude, is rarely acquainted. Even this season they turn to their advantage, by applying the spare hands that it occasions to different kinds of work, which could not be done so cheap in any other part of the year, and at the same time travel and carry goods on the ice, as speedily at least as on the water in the summer (*b*). By keeping their customs low, they have their warehouses always full of goods and manufactures of every kind. By their excises, levied chiefly upon strangers who pass through, and live according to their own manner in their country, they raise immense sums of money, and create a necessity of frugality, amongst their own subjects; so that they are not impoverished by importing the richest goods from other countries, and, though the greatest dealers in luxuries, are the farthest from being luxurious (*i*). Rough and raw materials they cleanse and sort; gross and bulky commodities they import in one kind of vessels, divide and export them in others. A low interest keeps the bulk of their cash in trade; working cheap, and selling at a small profit, secures them continual employment; and, in short, their gains resulting from the industry, ingenuity, and indefatigableness of different ranks of people, keep them thoroughly connected, and bind every man, by his private interest, to the publick service (*k*).

(*g*) Ray's Travels, vol. i. p. 23, 35, 41. Voyages de Miffon, vol. i. p. 3, 4, 5. Janicon Etat present de la Republique de Provinces Unies, 1739, 12°.---(*h*) Observations upon Trade and Commerce, addressed to King James I. Traité du Commerce de Hollande. Gemelli Carreri's Travels,---(*i*) Republica Batavica 1689, 12°. Interest van Hollandt de v. d. H. i. e. van den Hove, Amsterd. 1662, 8°. Memoirs pour servir l'Histoire de Hollande---(*k*) Sir Walter Raleigh, in several of his Political Essays; the pensionary John de Witt, in his tracts under the name of van den Hove, or de la Cour; Sir William Temple's Observations; Basnage, Le Clerc, Janicon, Sir Peter Pett, Sir William Petty, and Doctor Davenant in their Political Treatises.

THESE descriptive histories, these assemblages of facts, lead us to the experimental knowledge of the principles of sound policy. They shew us, that natural advantages are in themselves of very little consequence, if not improved in a right method, and with assiduous application. Then indeed they come out with irresistible force, and, while thus directed, carry national power, and national happiness, as far as they can be carried. They shew us also, that there are advantages, of very different kinds, which certainly require a difference in direction, and yet not so great as might be imagined; for how dissimilar soever the faces of countries may be, the same, or very near the same principles, may be applied with good effect. They likewise make us sensible, that though natural advantages without a sound policy will do little, yet a wise and steady policy, where there are very few advantages, will avail much, and that, as in the body natural, so in the body politic, a right discipline will work even upon nature, and extract beneficial consequences from real inconveniencies. But in all cases relaxations are dangerous; or, not to mince the matter, and write below the truth, relaxations are destructive; and all these doctrines come to us with such a weight of evidence, that we cannot avoid seeing and acknowledging their truth.

A GOVERNMENT wisely constituted, so as to leave nothing wanting, either to necessary authority, or rational liberty; a succinct system of laws, easily understood, punctually executed, and calculated solely for the public good; regular manners in a nation, founded on solid principles, and directed to the promoting the common weal; an invariable regard to merit; an inflexible justice against crimes detrimental to the society; a genuine public spirit, rendered the characteristic of the people in private and in public transactions; industry made the sole basis of wealth; and service done to the state, the single road to titles and honour; splendour in whatever regards the public; piety, and true devotion, supported by purity of manners, and unostentatious charity, in all that regards religion; and a sober frugality, securing an equal and comfortable subsistence to the bulk of a contented people, is the way to render them peaceable and potent at home, respected and beloved abroad, and safe from every danger while they keep out corruption. In such a state power would not be desired or declined; the public income would be regulated by the public interest; the administration would pique themselves on asking little; and the nation, knowing the source of its own felicity, would support the government at the expence of all.

THERE may be, and there certainly are, a kind of arts, (forgive me, reader, if I write the word at full length) a kind of artifices, by which the state of a nation may be disguised, and its ruin a little protracted; but of these my Lord Verulam said truly, that, like strong cordials, they may help a pang, but they increase instead of eradicating the disease. The only rational
and

and solid method of improving and exalting a nation, is to give them right notions of their own interests, and thereby engage them to pursue those interests with vigour: this will excite in them a desire to cultivate their country to the utmost, and to submit, for their own sakes, to such laws as have a visible and a real tendency to this end; this will prompt their rulers to enforce their laws, not only by a strict and severe execution, but by what will do the business more effectually, and with less difficulty, by their own example. Ambition will not be extinguished, but it will change its views; and men of active spirits, instead of aiming at making themselves great in a declining and impoverished country, which is never desirable, and seldom possible, will exert those spirits in aggrandizing their country, and become great by consequence rather than by choice. There want not the materials in most countries; and certainly they are not wanting in this, to raise as strong, as lasting, and as beautiful structures, as any that we see in history, the true and genuine use of which is to inspire us with suitable inclinations, and, in the first place, to furnish us with the lights requisite to exhibit a proper plan.

CHAPTER II.

SITUATION furnishes the greatest facility, or is found to be the strongest obstacle to the improvement of any country, and consequently to the happiness of the inhabitants. The Tatars or Tartars a strong instance of this. The like may be said of the numerous nations inhabiting the interior parts of Africa. The savages of America afford as clear evidence. The case of the Russians demonstrative, that a people shut in, and without intercourse with the rest of the world, must of necessity remain abject, poor, and barbarous. An advantageous situation of any country has commonly a good effect upon its inhabitants. The Peninsula of Arabia, in early times rich, well inhabited, and highly improved, of which some vestiges still remain. Phœnicia, the great mother of arts, industry and manufactures. The remarkable advantages of Carthage, and how extensively and wonderfully cultivated; her immense power, amazing grandeur, fall, recovery, and present condition. The uses that may be made of these reflections.

SITUATION is the circumstance that most obstructs or contributes most to promote the flourishing state of any country. Where-ever this labours under great defects, human ingenuity or industry, though by vigour and perseverance it may, yet can very hardly overcome them. This is a circumstance worthy of attentive consideration, which will more clearly and

certainly appear if we take a view of the countries where this is most remarkable, and contemplate the visible effects on them, and of consequence upon their inhabitants.

THAT vast tract of country between the Caspian sea and the frontiers of China, inhabited by the Khalmuc, Usbec, and other Tartars, which makes little less than one-eighth of the great continent of Asia, and is almost two-thirds as big as Europe (*a*); though a great part of it be wonderfully pleasant, and in some degree fruitful, as lying in some of the finest climates on the globe, yet being all within land, and having only a small number, and those too but indifferent rivers, is almost every-where rude and uncultivated, having very few, and these, in comparison of our cities in Europe, but inconsiderable towns, and its inhabitants living in a state of nature, fierce and intractable, little visited by others, without any desire of altering or bettering their condition; and having wasted ages in this kind of life, are like to persist in it to the end of the world (*b*). Though there wants not either in their country, in some parts of which are found precious stones, gold, musk, and other rich commodities, or in themselves, who with great strength and activity of body, are far from being deficient in understanding, a capacity of improvement; if their being thus shut out, or rather shut in, from any communication with politer nations, did not hinder their being awakened to a proper sense of the advantages that might arise from more rational notions in respect to humanity, religion, and government (*c*).

THIS method of reasoning is confirmed and enforced by the conquests formerly made by these warlike nations, who have commonly sat down in the conquered countries, as in many respects preferable to their own, and adopted more or less the laws, customs, and manners of the ancient inhabitants, as we see in Persia, India, China, and other countries (*d*). From the very same cause, and the gradual improvements in the policy of neighbouring nations, their incursions are less fatal than in past times, and many of those to whom they were in former ages terrible, are now become so to them, as particularly the Russians, who were once their tributaries, and now, purely by the alteration in their manners, and the changes this has produced in their territories, are in a condition, if it was at all their object, to be-

(*a*) Templeman's Survey, pl. 23. --- (*b*) Luyts, *Introd. ad Geographiam*, § 3. cap. 11. p. 508. *Relation de la Grande Tartarie, dressée sur les Memoires originaux, des Suédois, Prisonniers en Sibirie, pendant la Guerre de la Suede, avec la Russie*, chap. 1. Strahlenbergh's Account of the North-east of Asia --- (*c*) *Histoire genealogique des Tatares*, p. 55. *Voyage de Moscou a la Chine*, par Mr. Everard Ibrants Ides, chap. 8. *Les Moeurs et Usages des Ostiacks*, par Jean Bernard Muller, Capitaine de Dragons au Service de la Suede, pendant sa captivité en Sibirie. --- (*d*) *Histoire de Timur-Bec*, connu sous le nom du Grand Tamerlan, Empereur de Mogols et Tartares, écrite en Persan, par Chere eddin Alinatif d'Yezd, Auteur contemporain, liv. 2. 3. 5. *Histoire generale de l'Empire du Mogol, depuis la Fondation, sur les Memoires de M. Manouchi*, p. 12. 13. *Histoire des deux Conquerans Tartares, qui ont subjugué la Chine*, par le P. d'Orleans.

come their masters (*e*). By these variations they are now confined, if that term may be used for so vast a tract of country, to what we have described as their present possessions, where they lead their old vagabond erratic kind of life, of which, like all barbarous people, they are extremely proud; and pleasing, or rather cheating themselves with specious notions of liberty and independence, suffer hardships they might avoid, and lose conveniences they might obtain (*f*). For though the disadvantages before stated are very great, yet it is their own blindness and obstinacy, the consequences, but not necessary or fatal consequences, of these natural disadvantages, that render them invincible.

ALL the interior part of Africa is, from the same cause, in the same condition; so that it may be truly affirmed that a country, at least twice as big as Europe, in which there are many large regions, both fertile and populous, lies hidden and obscure, though abounding with many rich commodities: and this is always to the prejudice of the inhabitants; of whom indeed we know little, and what little we do know is from their misery, in being sold from the very heart of that great continent, gradually, from country to country, till at length, being brought down to the coast, they fall into the hands of the Europeans (*g*). What is still more wonderful, we know at this day, when in all other respects our science is so much extended, less of the interior of Africa than the ancients (*b*); and all we know, and all that has been transmitted to us by those who knew more, gives us a most melancholy idea of these nations that are thus shut up and secluded from the rest of the world. But this seems to be more their own fault than that of the Tartars, since there are many large navigable rivers by which they might correspond with each other, and by degrees, through a proper exertion of industry, with the most distant nations (*i*). For, notwithstanding this is

(*e*) Fr. Rogeri Bacon. *Opus majus*, p. 231, 232, 233. *Itinerarium fratris Odorici fratrum minorum, de Mirabilibus Orientalium Tartarorum*, apud Hackluyt, vol. ii. p. 39. Joannes Mandevill militaris ordinis, de diversis Patriis, Regionibus, Provinciis & Insulis, cap. 39, 40, 41. *Journal du Sieur Lange, contenant ses Negociations a la Cour de la Chine, en 1721 & 1722.* *Present State of Russia*, vol. ii. p. 212, 425.---(*f*) *Relation du Voyage de L. Duplan Cerp'in, en Tartarie.* *Relation de Tartares Percopites, Nogates, Circassies, &c.* par de Luca. *Lettre a Monseigneur le Marquis de Torcy, Ministre & Secretaire d'Etat, sur le nouvel Etablissement de la Mission des Peres Jesuites dans la Krimée.*---(*g*) Joan. Leonis, de totius Africae descriptione, libri novem, Antverpiæ, 1556. 8°. Joan. Bapt. Grammaye, *Africa illustrata*, Tornaci 1622. 4°. *Description of Africa by Ogilby*, making one Part of Moses Pitt's Atlas, translated chiefly from a Work in Dutch of the same Title, by Doctor Oliver Dapper.---(*h*) Herodot. lib. iv. Piodor. Sicul. *Biblioth. Hist. lib. iii.* Strabon. *Geograph. lib. xvii.* Plinii *Hist. Natur. lib. v.* Pomp. Melæ de Situ Orbis, lib. i. Quint. Curt. lib. iv. Salust. in Bell. Jugurth.---(*i*) Joan. Antonli Cavasi, *Descriptio Historica Regni Congo, Matamba, & Angola*. Bononiæ, 1687, fol. *Voyage de Lybye, au Royaume de Senega, le long du Niger, avec la description des habitants* par Claude Jannequin, Paris, 1643, 8°. *Nouvelle Relation de l'Afrique Occidentale*, par le P. Labat, Paris, 1729, 5 vol. in 12°. *Geographie Moderne*, par Abraham du Bois, p. 3. chap. 1. 1--13. *Dictionnaire de Commerce*, tom. ii. col. 627--631.

the state of the inland parts, yet taking Africa altogether, it is perhaps the richest and best situated, and not the least pleasant part of the globe, though the worst cultivated, because inhabited by the worst sort of people (*k*).

IN America, which is near thrice as big as Europe, the only civilized and cultivated countries which the Europeans found upon the continent, were the empires of Mexico and Peru. The former most happily situated, as extended between the North and the South seas, under a regular government, and well improved (*l*). The latter stretched along the South Sea, and defended as it were with a wall, by a long chain of mountains at the back. Happy under the government of its Ynca's, by whom their subjects were taught to reap, in a degree of perfection, all the comfortable effects that a fine climate and a rich soil could produce (*m*). But in the inland parts, amongst the marshes, mountains, and forests, the inhabitants, like their country, were intractable and savage, obstinately addicted to that fierce state of liberty in which hunting furnished their principal subsistence; and idleness being mistaken for happiness, made them abhor the notion of property, which is the foundation of rational policy, without extinguishing that animosity, for which one is at a loss to account, amongst people who desire to possess nothing (*n*). By this means it has come to pass that this part of the globe, as pleasant, as fertile, and as rich, as any, is in so singular and strange a condition, not having so much as one regular government or monarchy in the power of the natives, but the whole in the hands of some European nation or other; or if not, in its original unimproved state, the country rough and wild, its inhabitants savage and barbarous. This alone is sufficient to shew the excellency of science, and a civilized state; in order to understand and apprehend which thoroughly, there will be nothing farther necessary than to contemplate carefully the superiority of Europe, the subjection of America, the causes and the consequences of both.

BUT we have reserved, for the last instance of that extreme difficulty with which a nation, inclosed and shut in from the rest

(*k*) Atlas Maritimus et Commercialis, p. 236, 237, 238. Sir William Monson's Naval Tracts, book v. Gee's Trade and Navigation of Great Britain considered, chap. 20.—(*l*) Herrera Descripcion de las Indias Ocidentales. Historia de la conquista de Mexico poblacion y progressos de la America Septentrional, conocida por el nombre de nueva Espana, por D. Antonio de Solis, Madrid, 1684 fol. History of Spanish America, 1747, 8°—(*m*) Inca Garcilazzo de la Vega, Historia de las Antigüedades y conquista del Perú, en que se contiene el Origen de las gentes, y la conquista que hicieron las Espanoles, con Don Francisco Pizarro, Madrid 1730, fol. 2 vol. Relacion Historica del Reyno de Chile, y de las Misiones, y Ministerios, que exercita la Compania de Jesu, por Alonzo de Ovalle, Roma, 1646, fol. History of Spanish America—(*n*) Sir Walter Raleigh's Discovery of the large, rich, and beautiful Empire of Guiana, in the third Volume of Hackluyt's Voyages, p. 627. Relation de la Mission des Moxes, dans le Perou, imprimee à Lima, par Ordre de Monseigneur Urbain de Matha, Evêque de la Ville de la Paix. Voyage de M. de la Condamine.

of the world, avails herself even of the greatest force, or of the most valuable natural advantages, that, the sovereign of which is now one of the most considerable potentates of Europe. By this I mean the great empire of Russia, that empire, which extends from the northern ocean to the Black Sea, and from the Baltic to the sea of Japan. This, with regard to us, and most of our neighbours, is a later discovery than even that of America, and perhaps it would not be difficult to prove that the one led to the other (*c*). Christopher Columbus went to the former in 1492; and it was in 1553 that Richard Chancellor arrived at Kolmogorod, not far from Archangel, by which a direct communication was opened between other countries and those under the dominion of the Czars (*p*). It was not by accident that the people of Russia were thus circumscribed and confined, but through the policy of the Swedes, the Danes, and the people of Lubeck, who took all possible precaution that this great and powerful nation should not know or feel their own strength, but be kept as it were in a state of tutelage and dependence, rightly foreseeing what a mighty change it would make in the system of things whenever they came to exert themselves, and to shake off that barbarism which was the inevitable effect of that situation in which they held them. On just grounds therefore were those extensive privileges granted to the English nation, by the monarchs of Russia, in reward of this discovery, and considering the farther advantages they drew from the mediation of king James the first, in concluding that peace which delivered them from the oppression of their neighbours (*q*), the Czar, Peter the Great, might with good reason say, that he owed more to the crown of Great Britain than to any other crown in Europe (*r*).

ON the other hand, such countries as are happily situated, though not exempt from such revolutions as affect human affairs in general, and subvert the richest and most potent governments, have yet this singular prerogative, that, sooner or later, in a larger or in a lesser proportion, they recover out of their ruins. In other words; this advantage is so apparent and striking, that, however sunk or undone, however altered in their exterior circumstances, as to religion or government. yet in process of time the inhabitants of such a country recur to the expedients it points out, shake off their barbarity and distress, and return, once more, to some degree of civility and plenty.

(*c*) Hakluyt's Collection of Voyages, London, 1589, fol. p. 259--270. Eden's History of Travayle, 1577, 4^o. 254. Faïtes chronologiques de la Decouverte du nouveau Monde, par Pere Charlevoix, p. 32.--(*p*) Nova Anglorum ad Moscovitas Navigatione, Hugone Willowbeio Equite, Classis Prefecto, & Richardo Cancellero Navarcho, Authore Clemente Adamo Anglo. G. Battista Ramusio, Recolto delle Navigazioni et Viaggi, tom. ii. f. 17. Gerard Mercator, in the Inscription of his large Map of Europe.--(*q*) Julii Belli, Lamea Austriaca, lib. i. p. 30. Vittorio Siri, Memoire recandite, tom. v. p. 29. Discourse concerning the just Reasons which his Czarish Majesty, Peter the First, Czar, &c. had for beginning the War against the King of Sweden, Charles XII. 1700, &c.--(*r*) Gordon's History of Peter the Great, Emperor of Russia, vol. i. p. 54.

THE Peninsula of Arabia is one of the clearest and strongest proofs of this. It was perhaps the earliest seat of industry, and of the opulence resulting from thence in the world, to which authorities, sacred and prophane, bear indubitable testimony (*s*). It is true, this country could never boast much of its fertility; but, in point of situation, no country in ancient times, Egypt alone excepted, could enter into competition with it. On one side it was washed by the Persian Gulf, on the other by the Red Sea, having the Indian ocean in front, and the finest countries in Asia behind it (*t*). This enabled the inhabitants to maintain an extensive commerce by sea, with Egypt and Æthiopia one way, with Persia on the other, and with different parts of the Indies. The commodities they received by this means, they carried by land into Phœnicia, Syria, Mesopotamia, and even as high as the countries bordering on the Pontus Euxinus, carrying back into their own country the most valuable goods and manufactures of these distant regions (*u*). In consequence of the immense benefits resulting from so lucrative a trade, the country became every-where rich and populous, labour supplying plenty, and art magnificence. Hence ports, not very commodious in themselves, were rendered safe and capacious, their cities large, and well inhabited, their public buildings, in the highest degree, rich and splendid, the country finely adorned, and rendered fertile even in spite of nature (*w*). To such a height were these advantages carried, that Alexander the Great, whose military virtues were not at all superior to his political genius, intended this country for the seat of that empire which he meant to render universal (*x*). Augustus Cæsar, after he became master of Egypt, sent Ælius Gallus to subdue Arabia; and the inhabitants endeavouring to revolt from the Roman yoke, were again humbled by Trajan (*y*). In process of time subjection wore out industry, to which barbarism, indolence and poverty succeeded (*z*). Yet some degree both of commerce and of traffic they had in the time of Mohammed, who roused the sleeping spirit of his countrymen, not to restore the pristine glory of their own country, but to conquer others (*a*). Yet, even at this day, under the two fiercest nations, Turks and Arabs, this Peninsula exhibits some faint marks of what it once was. Judda, possessed by the Turks, is a port of great trade; so is Zibet. Mocha, in consequence of its being the staple of the coffee trade, is still a

(*s*) Gen. xxxvii. 25, 28. Exek. xxvii. 21--25. Herodot. lib. iii. Agatharchides apud Photium. Diod. Sicul. Biblioth. Hist. lib. iii.---(*t*) Herodot. Hist. lib. i. iii. Dionysii Periegesis seu Poema de Situ Orbis, v. 925. & seq. Plin. Hist. Nat. lib. vi.---(*u*) Diod. Sicul. Biblioth. Hist. lib. iii. Agatharchides apud Photium. Pomponii Melæ de Situ Orbis, lib. i. cap. 10. lib. iii. cap. 8, 9.---(*w*) Diodor. Sicul. lib. iii. Strabonis Geograph. lib. xvi. C. Julii Solini Polyhistor, cap. 36.---(*x*) Strabon. Geograph. lib. xvi. p. 785.---(*y*) Joseph. Antiq. Jud. lib. xv. cap. 12. Strabonis Geograph. lib. xvi. Eutrop. lib. vii. cap. 4. Dio. lib. lxxviii. Ammian. Marcel. lib. xiv.---(*z*) Ockley's History of the Saracens, vol. i. p. 19.---(*a*) Abulfeda, de Vita et Rebus gestis Mohammedis. Histoire de Mahomet, tirée des Auteurs Arabes, par Mr. Gagnier. Dean Prideaux's Life of Mahomet.

place of great resort. Aden, which, in the language of the natives, signifies delight, so famous in antiquity, from whence the coast was stiled Arabia the Happy, and which celebrated mart was called afterwards the Roman port, is still frequented (*b*). Some little ports are yet open in that part of the country which fronts the Indian ocean; and on the side towards Persia, though not with the gulph, lies Muscat, once in the hands of the Portuguese, now of the Arabs, and a place of great trade, the inhabitants being reputed as civil, as just, and as moral a people, as any on the face of the globe (*c*).

THE country of Phœnicia is of very small extent, bounded on the East and South by Palestine, on the North by Syria proper, and on the West by the Mediterranean sea, so narrow and confined, that it scarce contains more land than one of our counties, and yet no country makes a greater figure, or with greater reason, in ancient history, and no country could boast of so many great and rich cities, so many commodious and well frequented ports, within so very small a compass (*d*). Of these the most early was Sidon, seated in a fertile and delightful soil, defended on one side by the sea, and on the other by the mountains, lying between it, and that which bears the name of Libanus (*e*): the district about it but small, yet excellently cultivated, producing corn, oil, and silk in abundance. The inhabitants are celebrated by the Greeks as the inventors, or at least the great improvers of every useful art and science. They rendered astronomy beneficial to mankind; they reduced navigation to rules; they perfected the art of ship-building; they invented glass; they introduced dyeing; in fine, they so far excelled in masonry, and in whatever regarded architecture, that Solomon had recourse to them, or to their descendants the Tyrians, for building the temple (*f*). This fame, acquired more early than any profane histories reach, continued down to far later times, as appeared by their being stiled by one of the prophets the wise Sidonians (*g*). In them began the glory of Phœnicia; and by the inhabitants of this country, science, manufactures, and commerce, were carried to the West. Egypt was in possession of the trade of the East, which sufficiently employed her industry; but the Phœnicians traded both to the East and with Egypt; and accumulating the rich commodities of those countries, and improving them by her own manufacture, she carried them to the most distant nations, and from them brought also very rich returns (*b*). These people, so far as history can inform, were the first

(*b*) Du Bois *Geographie Moderne*, p. li. chap. 8. *Dictionnaire de Commerce*, tom. ii. col. 701-706. Hamilton's *Account of the East Indies*, vol. i. chap. 4, 9. ---(*c*) *Atlas Maritimus et Commercialis*, p. 233, 235. Ovington's *Voyage to Surat*. ---(*d*) Herodot. *Hist. lib. v.* Diod. *Sicul. Ethic. Hist. lib. v.* Strabon. *Geograph. lib. xvi.* ---(*e*) Joshua xii. 28. Joseph. *Antiq. Jud. lib. i.* Justin. a Tropa, lib. xviii. c. 3 ---(*f*) Diodor. *Sicul. Bib. Hist. lib. xvi.* Dionysius *Perieg. ver. 904.* Plin. *Hist. Nat. lib. vii. c. 56* ---(*g*) Zechariah ix. 2. ---(*h*) Strabon. *Geograph. lib. i. xvi.* Pompon. Mela de *Situ Orbis*, lib. i. cap. 12. Ammian. Marcell. lib. xiv.

who moulded commerce into a science, and framed to themselves the glorious design of making mankind known and useful to each other, how different soever in manners, and seated at whatever distance. They knew that all countries were rich by nature, or might be made so by industry and art, and therefore they did not only visit remote regions for what they could bring away, or obtain from the barbarous inhabitants for gewgaws and trifles, but they endeavoured to propagate sense, civility, and the art of living, and, in short, where-ever they came, sought to make the people as knowing and as industrious as themselves (*i*). With this view they sent colonies to Africa, to Spain, and many say hither; but whatever becomes of that notion, which some have taken great pains to maintain, it might be easily proved, that from the gradual extension of lights derived from them, spring all the politeness and prosperity of the western world (*k*). Yet in this once flourishing country, so crouded with cities, and each of them almost a kingdom, a country maintaining its grandeur under all the four ancient monarchies, there is little left except ruins under the dominion of the Turks. However, the native industry of the people, who have still great quantities of silk, and other valuable goods, preserves Sidon a port, though but a poor one (*l*). Yet Tripoli, which derives its name from being built at the joint expence of the Sidonians, Tyrians and Arabians, is still a very considerable place, as being the port to Aleppo; and all the adjacent country, carries apparent and distinguishing marks of the wealth, the skill, the labour, the magnificence, and the taste, of its ancient inhabitants (*m*).

CARTHAGE was amongst the number of the Phœnician colonies, being the daughter of Tyre, as Tyre was of Sidon. There are many reasons to expect that a colony should be better seated than a mother city, because the one is often the effect of chance, and the other of judgment (*n*). Carthage was a pregnant instance of this: it was built on the coast of Africa, in a country remarkable rich and fertile, at an equal distance from the extremities of the Mediterranean; its inhabitants were frugal and industrious, celebrated alike for arts and for arms; laborious, in cultivating and improving a fine territory, which they gradually extended and adorned on every side; universally famous for their wise choice in founding new cities, and in fortifying them, and their capital, with the greatest care; skilful beyond all others in the art of navigation; equally addicted to manufactures and commerce; assiduous in discoveries; active in

(*i*) Diodor. Sicul. Biblioth. Hist. lib. v. Plin Hist. Nat. lib. v. cap. 12. Pomp. Met. de Situ Orbis, lib. i. cap. 11.—(*k*) Strabon. Geograph. lib. xvi. Arrian de Expeditione Alex. Mag. lib. ii. Appian de Bello Hispan.—(*l*) Dictionnaire de Commerce, tom. ii. col. 574. Memoires de Chevalier d'Arvieux, tom. i. p. 231. Atlas Maritimus et Commercialis, p. 185.—(*m*) Herbelot, Bibliothéque Orientale, p. 736, 758. Voyages de Thevenot, tom. ii. p. 699, 700. Maundrell's Travels, p. 31.—(*n*) Plin. Hist. Nat. lib. v. c. 19. Justin. c. Trogo, lib. xviii. cap. 5. Salust. Jugurth.

making colonies, and attentive to them when made; prudent in matters of government; exact in military discipline; admirable in raising, maintaining, and conducting a naval power; and affecting above all things, the empire of the sea (*o*). In their most flourishing condition, they boasted of seven hundred thousand inhabitants in their capital, which was at once the finest, the strongest, and the most commodious city in those times, possessing an extensive coast of three thousand miles, and therein three hundred large towns, exclusive of their conquests in Spain and Sicily, and of whatever they held in that Atlantic isle, which some have surmised to be America (*p*). These wonderful advantages were the fruits of a steady adherence to wise and well weighed principles, for the space of seven hundred years and upwards.

AFTER three long and bloody wars their country was subdued, and their city subverted, by the Romans, who gave this testimony of their sense of its excellent situation, that they never reckoned themselves secure so long as this rival city stood (*q*). They knew from how small a beginning it had risen to such amazing greatness, and they could not conceive any assurance of safety, after all their victories, till they saw it in ruins, and this, notwithstanding they had already destroyed their fleet, and had the heirs of all their noble families in their hands as hostages (*r*). The dying efforts of Carthage, were prodigious; deprived of their fleet and their port, they still struggled for the preservation of their city, and, instigated by despair, dug a new haven, out of which they sent a fleet of one hundred and twenty armed vessels, all built in the space of two months (*s*). Rome herself, when she had time to recollect, repented of this action; and the youngest of the Gracchi sent a colony of six thousand men, to raise a new town out of the rubbish of the old. But some accidents, which their reviving fears took for prodigies, defeated this design (*t*). Julius Cæsar, whose prudence was not inferior to his valour, meditated the restitution of Carthage; and Augustus meeting with this, amongst other schemes, in the papers, he left behind him, executed that project somewhat more than a hundred years after its subversion by Scipio (*u*). It remained famous long after, under a variety of masters, till it

(*o*) Diodor. Sicul. Biblioth. Hist. lib. xi, xiv, xix. Fragment. e lib. xxiv, xxv. Strabon. Geograph. lib. i, ii, xii. Tit. Liv. Hist. Rom. lib. x. Polyb. lib. xvi. Justin. lib. xviii.—(*p*) Strabon. Geograph. lib. xvii. Tit. liv. Epitom. ii. Pompon. Melæ, de situ Orbis, lib. i. cap. 7. Appian. de Bellis Punicis, cap. 40. Polyb. lib. ii, iii, x.—(*q*) Salust. in Jugurth. Horat. Epod. vii. Plutarch. in Cat. Cens.—(*r*) Polyb. Excerpt. lib. xxxiii. Liv. Epitom. lib. xlix. C. Vel. Patercul. Hist. lib. i.—(*s*) Appian de Bellis Punicis, cap. 51, 52. Liv. Epitom. lib. li. Flor. lib. ii. cap. 15. Procop. lib. i. cap. 20. Oros. lib. iv. cap. 22.—(*t*) Appian. de Bellis Punicis, cap. 56. Et de Bellis Civilibus, lib. i. cap. 6. Plutarch. in Gracchis. Liv. Epitom. ix.—(*u*) Strabon. Geograph. lib. xvii. p. 833. Appian de Bellis Punicis, cap. 56. Plin. Hist. Nat. lib. v. cap. 4.

fell into the hands of the Saracens (*w*). It is now totally ruined, and the city of Tunis is risen up in its stead (*x*), which, with the other piratical states on that coast, still remain unpollished monuments of what was once the greatest maritime state upon the globe (*y*), and which, in wiser and better hands, might be rendered formidable again (*z*).

It will appear to the attentive reader, from these succinct remarks, how strong, and almost invincible bars, natural imperfections are to the improvement of a country or its inhabitants. On the other side, how natural advantages encourage and solicit a people to apply themselves to draw from them, by industry and application, all the benefits they promise from their appearance. This derives still a superior weight, from the instances given, of their recovering in a greater or less degree, from the ruin brought upon them by interior corruption or external force. We may likewise draw from these remarks a general idea of the progress of useful knowledge, and the arts subservient to civil life, which are not bounded by any limits, or confined to particular climates, but may be transferred where-ever virtue, wisdom, and fortitude, are found amongst mankind. Hence they may be considered as so many general principles on which our system is founded, and to which, in the course of this work, we shall frequently have occasion to refer, in order to shew that every thing is possible that has been any-where attained, if men will exert that spirit and diligence that is requisite to the acquisition.

(*w*) Heylin's *Cosmography*, p. 880. Luyt's *Introd. ad Geographiam*, sect. 4. cap. 19. Chevreau, *Histoire du Monde*, liv. vii. cap. 10.—(*x*) Cluver. *Introd. in universam Geographiam*, lib. vi. cap. 8. Peritfol. *Itinera Mundi*, cap. 6. Ogilby's *Africa*, p. 251.—(*y*) Herbelot, *Bibliothèque Orientale*, p. 66. Robbe, *Geographie*, tom. ii. p. 169. *La Géographie universelle*, par le Sieur de la Croix, tom. iv. p. 179.—(*z*) Doctor Shaw's *Travels*, vol. i. p. ii. chap. 1. 2. *Mémoires du Chevalier d'Arvieux*, tom. iv. p. 33. Saint-Gervais, *Mémoires Historiques du Royaume de Tunis*, p. 352.

CHAPTER III.

An insular situation preferable to all others, and the reasons on which this assertion is founded. A succinct history of Crete, the first maritime power in Greece: this, however extraordinary, surpassed by Tyre. A brief history of the Tyrian commonwealth, and a view of its extensive influence. A more singular account of the island and republic of Rhodes, the nature of their government, the source of their immense riches, and the causes of their declension. A review of the principal points of their history, till through their own error they became a Roman province. Gallant defence of this small island against the whole force of the Ottoman empire. Other instances of the like kind in reference to Candia, Malta, and Corfu. Motives for insisting further on the superiority of this situation in respect to commerce. A short sketch of the rise and progress of the state of Venice. The island and city of Ormus described; how it came to be the center of commerce between the western parts of the world and the east. Conquered by Shâb Abbas, with the assistance of the English, and destroyed. The happy situation and singular advantages of the island Mauritius, settled by the Dutch, after being slighted by the Portuguese and English: afterwards deserted, resettled, and again abandoned by the Dutch: Is thereupon possessed by the French East India Company, who bestow on it the name of Isle de France, under which it is granted to the present company of the Indies by the crown, who notwithstanding were inclined to quit it. Mr. de Bourdennaye, in five years, rendered it the most important place they have. The history of the Dutch island of Curaçao, one of the most flourishing in the West Indies. The application, and conclusion.

AN insular situation, amongst those recommended by the ablest and most capable judges, has been represented as preterable to any, as enjoying some benefits inseparably peculiar thereto, and being at the same time free from many inconveniences to which countries seated on the continent are, from that very situation, necessarily exposed. The soil of islands, more especially if of any great extent, is commonly rich and fertile, and the climate rather milder than, under the same parallel of latitude, upon the main land (a). The sea being the safest and most natural boundary, affords the inhabitants great security in settling, cultivating, and improving their country; and a good government being once established, the inhabitants of an island must, for these reasons, thrive quicker than their neighbours, and, being naturally prone to navigation, supply their wants, export their

(a) Herodot. lib. iii. p. 81. Diodor. Sicul. Biblioth. Histor. lib. v. Strabon. Geograph. lib. i.

own commodities, establish an extensive communication with the countries round them, and thereby attain an influence over their neighbours, strengthen themselves at home, augment their riches by trade, and, in consequence of that naval power, of which commerce only is the natural basis, commonly enjoy a greater proportion of freedom, affluence, and grandeur, than can well be attained, or, if attained, be for any length of time preserved, by inhabitants of countries of the same extent on the continent (*b*). As these are points of fact, they are best established from history; and the reader, when he carefully reflects on those instances that may and shall be produced from thence, will find himself much better enabled, than by any other method he could have been, to judge of the propriety of the reasons and remarks that will occur in a particular application (*c*). Besides, he will also see, and be convinced, that many things which he might have otherwise mistaken for the bold flights of a luxuriant fancy, or the chimerical and delusive inventions of a fertile imagination, are really sober and solid truths, suggested from the writings of men of sound judgment, and which may at any time, in any like place, be certainly reduced to practice, because the light of experience shews us that they have been actually practised already (*d*). A manner of writing in respect to the utility of which we may cite the authority of the celebrated John de Witt, than whom, in things of this nature, a better cannot be mentioned, whether ancient or modern (*e*).

THE most ancient maritime power, recorded by the Greek historians, is that of Crete; and indeed they could not well go higher, since this is one of the first facts in what ought to be styled credible history. For Minos, king of Crete, son of Jupiter and Europa, observing that the subjects of all the little principalities of Greece, as well as the inhabitants of the islands in the Archipelago, perverted the very use of navigation in committing piracies upon each other, having first reduced the whole island he governed into order, and established so complete a system of laws, that the wisest men have thought them worthy of perpetual memory, he began to assume the dominion of the sea; and having a superior naval force, employed it in suppressing pirates, and establishing a free and open trade, which is the most stable basis of maritime empire (*f*). Crete, in the situation that things then were, was the most natural seat of such an empire, enjoying a happy, temperate, or rather warm climate, at the distance of about thirty leagues from Peloponnesus, about the like distance from lesser Asia, and not above fifty leagues from Africa, from

(*b*) Apuleius, ex Aristot. de Mundo. Cic. de Nat. Deor. lib. ii. Plin. Hist. Nat. lib. ix. cap. 2 — (*c*) Tit. Liv. Hist. lib. xiv. Tacit. lib. xiv. Flor. Epitom. lib. ii. c. 8 — (*d*) Aristot. Hist. Animal. lib. v. Alex. ab Alexand. Genial. Dier. lib. iv. Polyd. Virgil de Invent. Rerum. lib. iii. c. 6. — (*e*) Grondeu en Maximen, van de Republieck van Holland, en Rotterdam, 1671, 8°. — (*f*) Aristot. Ethic. lib. i. cap. 13. Plato, de Legibus, lib. i. Thucyd. de Bello Pelopon. lib. i. Diodor. Sicul. Biblioth. Histor. lib. v. c. 85. Apollod. lib. iii. p. 163.

whence it is celebrated by Virgil as lying in the middle of the sea. It may be stiled considerable in point of size, being about six hundred miles in circumference, and yet not a twentieth part so large as Great Britain (*g*): exceedingly fruitful in rich and staple commodities, such as silk, wine, oil, honey, wax, the finest fruits, many valuable gums, and other drugs of price, and not deficient in wool, corn, and other necessities; abounding, for those early times, with capacious and commodious ports, and inhabited by a sensible and warlike people (*b*). After the death of Minos, they established a republican government, retaining however their old laws, and improving their wealth and power to such a degree, as to acquire their country the epithet of Hecatompolis, from its having no fewer than a hundred well built and populous cities, retaining its liberty, and with it that prerogative, from whence Aristotle stiles this island the empress of the sea, upwards of thirteen hundred years; and at length overwhelmed, after a glorious struggle, by the all-grasping power of the Romans (*i*), who, as Florus truly acknowledges, had no better title, or rather could devise no fairer pretence to make this conquest, than the desire of being possessed of so noble an island; as the only method to secure which, they most barbarously exterminated the far greatest part of its ancient inhabitants (*k*).

It may seem not a little strange, that the Cretans being confined within such very narrow bounds, and having in process of time so many powerful princes and states in their neighbourhood, should nevertheless maintain their wealth, their commerce, and their superiority at sea, for such a length of time, and this, notwithstanding the great corruption of their manners, their frequent civil wars, and their interfering too much with the affairs of the continent, which in the end however proved their ruin: but it will appear much more strange, that a people inhabiting an island, which contained fewer square yards than Crete did miles, should still make a greater figure at sea than the people of Crete; should oppose themselves with more firmness than even the great king, as the Greeks stiled the monarch of Persia, against the Macedonian conqueror; stop the progress of his arms longer, and render the dispute between them more doubtful than with any of the other nations, whom, in the rapid course of his victories, he subdued. Yet for this we have all the evidence that the nature of so extraordinary a fact can demand, an evidence so clear and irresistible, that, strange as the fact is, the truth of it has never been called in question.

(*g*) Diod. Sicul. lib. v. Strabon. Geograph. lib. x. Plin. Hist. Nat. lib. iv. c. 12. Ptolem. Geograph. lib. iii. Solin. Polyhist. c. 11.—(*i*) Arist. de Republic. lib. ii. c. 19. Strabon. Geograph. lib. x. Ptolem. lib. iii. Virg. *Æneid*. lib. iii. v. 104. Plin. Hist. Nat. lib. iv.—(*j*) Herodot. lib. vii. Homeri *Iliad*. β Pausan. lib. vii. Athen. Deip. lib. x. Clem. Alex. *Prod.* lib. ii.—(*k*) Liv. lib. xcix. c. Appian. *legat.* xxx. Flor. lib. iii. cap. 7. Vell. Patercul. lib. ii. c. 38. Eutrop. *Breviar.* lib. vi.

THESE were the Tyrians, who, after their old city, built up on the coast of Phœnicia, had been sacked and destroyed by Nebuchadnezzar, retired to an island less than two miles distant, and not full three in compass, where they settled themselves, and, in the space of seventy years, so far recovered their former grandeur as to erect a city, which had indeed precisely the same bounds with the island, compleatly fortified, having a spacious port in the bay, between them and the continent, adorned with elegant buildings many stories in height, the want of earth obliging them to trespass on the air, and enriched with immense magazines of every kind of merchandize that either the eastern or the western world could furnish (*l*). They were sometimes governed by judges, afterwards by kings, who paid a kind of tribute or acknowledgment to the Persian monarch, but, after all, were rather respected as allies, than treated as subjects. This was owing to the superiority of their maritime power, and their close connection with the Carthaginians, a colony of their own, and the many services which they rendered to those great kings, and in which also they found their own account (*m*). This situation was so agreeable to them, and the conjunction of their interests united them so effectually to the Persians, that, in their quarrel, they stood a siege of no less than seven months against Alexander the Great, whose fortune had been here put to a stand, if his military skill had not suggested to him the means of depriving them of the great source of their strength, their situation; through the construction of an artificial isthmus, by which, with incredible labour, and with no small loss, after many months arduous endeavour, he rendered himself master of the place; and having slaughtered thousands, crucified thousands, and sold thirty thousand for slaves, his fury at length relenting, he suffered it to be again peopled; and, in the space of twenty years, such was the spirit and industry, such the genius and the resources of this trading people, that it was become again a wealthy and potent city, capable of holding out a much longer siege against one of his successors (*n*). In succeeding times, converting even their misfortunes into benefits, they united both the old and the new towns into one city, and, by the addition of some farther works, procured two good havens on the different sides of the isthmus. They met with favour and indulgence from the Romans, who paid a very high respect to all cities eminent for commerce, and distinguished them by the name of Navarchides (*o*), and continued, through a steady perseverance, in the improvement of those arts by which they rose, to make a great

(*l*) Herodot. Hist. lib. ii. Diodor. Sicul. lib. xvii. p. 283: Strabon. Geograph. lib. xvi. Joseph. Antiq. Jud. lib. viii. c. 10. Justin. lib. xviii. cap. 3. Plin. Hist. Nat. lib. v.—(*m*) Diodor. Sicul. lib. xvii. Strabon. Geograph. lib. xvi. Joseph. contr. Apion, lib. i. Arrian de Exped. Alex. Magn. lib. ii. Justin. lib. xi. c. 10.—(*n*) Diodor. Sicul. lib. xvii. xix. c. 4. Strabon. Geograph. lib. xvi. p. 757. Q. Curt. lib. iv. Plutarch in Alexandro. Justin. lib. xi. cap. 10.—(*o*) Strabon. Geograph. lib. xvi. p. 757.

figure till towards the close of the thirteenth century, when they fell under the dominion of their present masters, the Turks, who compleated that destruction with which they were threatened so long before by the prophets; so that there are nothing now remaining of both cities but dust and rubbish, to attest, as they do in the strongest and most convincing manner, all the extraordinary events that are recorded in history for such a series of years, and which sufficiently demonstrate, that industry, commerce, and naval power, are the natural pillars of a lasting, equal, and temperate government; which, though under different forms, they all along possessed, and the loss of which has reduced this island to what it now is, a confused heap of shattered remains of ancient magnificence, without any inhabitants save a few fishermen, whom the conveniency of its coasts inclines to lodge in these squalid ruins (*p*).

AFTER these, let me have leave to mention Rhodes, which, though less than Crete, and yet much bigger than Tyre, surpassed them both in the extent of her dominion, and in the continuance of her power. This island, as described by the ancient geographers, lies in the Carpathian sea, over-against the coast of that country which bore the name of Lycia, and made a part of Asia Minor, from whence this island was distant about twenty miles (*q*). According to the Greek etymology of its name, it might be stiled the island of Roses; and we may form an idea of the excellency of its climate from its being reputed the favourite of the sun, and said to be watered, in the language of the poets, with golden showers. Temperate it was, and serene, equally free from frosts and exhalations, so that its trees and its meadows were ever green, rich in pastures and in fruits, but more especially celebrated for high flavoured and delicious wines, abounding with limpid streams, and blessed with a safe, capacious, and commodious haven: in extent but forty leagues, exceedingly populous, governed by kings before the Trojan war, that is, before profane history records any thing with certainty; celebrated afterwards for being the seat of an ingenious, learned, and martial nation, versed in all the arts, and carrying the most useful and the most ornamental to the highest degree of excellence; allowed a place amongst those to whom the dominion of the sea was justly ascribed, not as confining and controuling the navigation of other nations, but as prescribing laws beneficial to all; so just, that they were adopted by the Romans, and wrought into their pandect (*r*). History has not recorded, nor indeed is it easy to conceive, a country better cultivated, or a people more esteemed. Every spot of this delightful island was improved, se-

(*p*) Exekiel xxvi, xxvii, xxviii. Herbelot, Biblioth. Orientale, p. 829. Mémoires du Chevalier d'Arvieux, tom. i. p. 250. Maundrell's Travels, p. 49, 50. Dr. Shaw's Travels, vol. ii. p. 273. — (*q*) Herodot. lib. ii. cap. 182. Diod. Sicul. lib. v. Plin. Hist. Nat. lib. v. cap. 6. Strab. lib. xiv. Athenæus, in Deipnosoph. lib. viii. — (*r*) Homer's Iliad 2. Herodot. lib. ii. Diod. Sicul. lib. v. Plin. lib. v. Strabon, Geograph. lib. xiv.

veral rich towns adorned its various districts, and many agreeable villages; while its capital, Rhodes, was equally distinguished as the seat of commerce, and of the muses: in point of trade it vied with Crete and Tyre; and, next to Athens, the university of Rhodes was most frequented in those ages, when learning was in the highest credit (*s*).

IN respect to their government they tried all the forms, of monarchy, democracy, and aristocracy; and at length, like most wise nations, framed a new constitution for themselves out of them all (*t*). A supreme magistrate they had, who was elected every six months, but, if occasion required, might be continued longer in office; with a senate, composed of the wisest citizens, who appointed generals, admirals, and other public officers of the commonwealth. They were extremely remarkable for the care of their poor, laying it down as a rule that every man should work, while he was able, for his own maintenance, but should be as well maintained, when he was no longer able, at the expence of the state (*u*). They were admirably skilled in ship-building, the only kind of science of which they made a mystery, or rather a secret of state; thoroughly versed in navigation, and the arts relating thereto, and this so universally, that Florus calls them a nation of seamen (*w*). As they built and navigated, so they likewise fought their vessels better than any other nation, and were, for many ages, looked upon as invincible on their own element (*x*). Some ill qualities they had, and amongst these, too strong an appetite for gain might be reckoned one of the worst. They were also very high spirited, treated the countries that were subject to them upon the continent with too much austerity, and affected high living, more than was consistent with the dictates of prudence and true policy (*y*). Their buildings, says an ingenious writer, "give us an idea of a people who thought themselves immortal; whereas the luxury of their tables declares them careless of life (*z*)."¹ But these, and all their other vices, were the effects of that opulence which an extended traffic, a free government, and a long series of prosperity, had produced. In bodies politic, as well as natural, the seeds of death are in the most wholesome nutriment, and sooner or later end in dissolution.

THE history of the Rhodians is very imperfectly related; and no wonder, since the works of all those who treated this subject expressly, are long ago lost. Yet their concerns with other nations shew them to have been an active and powerful people, from times as early as records can reach. Homer tells us, they sent

(*s*) Diod. Sicul. lib. v. Aristid. in Rhodiac. Plin. lib. iv. cap. 7. Dio. Chrysostom in Rhodiac. Sueton. in Tiber.—(*t*) Strabon. Geogr. lib. xiv. Polyb. Legat. 60, 61, 62. T. Liv. lib. xlii.—(*u*) Herodot. lib. ii. cap. 178. Strabon. Geograph. lib. xiv. Flor. Hist. lib. ii. cap. 7.—(*w*) Diodor. Sicul. lib. v. Strabon. Geograph. lib. xiv. p. 357. T. Liv. lib. xlvii.—(*x*) Tit. Liv. lib. xlvii. Polyæn. Strateg. lib. iv. cap. vi. §. 16.—(*y*) Diodor. Sicul. lib. v. Athen. Deipn. lib. xiv. xv. Tacit. Annal. xii.—(*z*) Stratoniceus apud Plutarchum, de cupiditate Divitiarum.

forces to the siege of Troy : we find in succeeding ages the names of many, and the characters of some of their princes, who were also Philosophers (*a*). When Xerxes invaded Greece, they were become a republic ; they made a considerable figure in the Peloponnesian war ; they sided afterwards with the Macedonians. They courted Alexander, and were in as much esteem with him as any of the Greek states (*b*). When his empire came to be divided, their commercial interests united them to Ptolemy ; and they were so steady in their alliance, that, rather than break their faith, they stood the shock of Antiochus's resentment, who sent his son Demetrius to reduce them, with a fleet and army that seemed more than equal to the task (*c*). The siege of Rhodes is one of the most remarkable in ancient history ; it lasted long, and ended for them in the most honourable manner. Demetrius, charmed with their spirit and intrepidity, renounced his design, demanded their friendship, and made them a present of all his military engines (*d*). They were the most faithful, and the most considered amongst the allies of Rome : they deserved it by the assistance of their fleets, and they were rewarded with provinces upon the continent (*e*). It was then that they began to think too highly of themselves, and of their power ; they interposed as mediators, or rather as arbitrators, between that haughty republic and the monarch of Macedon, which the Romans considered as impertinence, and punished, by taking away those provinces they had bestowed (*f*). The alliance subsisted notwithstanding. The Rhodians acted as their auxiliaries against Mithridates, and acted therein against their own interest. They suffered for this complaisance, and were frequently made sensible that they had contributed too much to the grandeur of their ally (*g*). However, they kept their liberty till the reign of Vespasian, when their island became a part, and the city of Rhodes the metropolis, of a Roman province (*h*). If the reader considers the small extent of this country, the source of its greatness, and the continuance of its freedom, little, if at all, short of two thousand years, his own reflections will teach him what to think of the improved advantages of an insular situation.

WHAT has been already said, sufficiently demonstrates the internal strength of the inhabitants of an island, who can never be attacked but by a power superior at sea, from whom succours can be rarely shut out, and where the people, from their ordinary course of life, not only acquire an active and a martial spirit, but

(*a*) Homeri Iliad β. Pindar. Olymp. Od. vii. Laert. in vit. Cleobul. Pausan. lib. vi. Aul. Gell. Noct. Attic. lib. iii.—(*b*) Diodor. Sicul. lib. xi. Strabon. Geograph. lib. xiv. Justin. lib. xi. cap. 2.—(*c*) Diodor. Sicul. lib. xx. Strabon. Geograph. lib. xiv. Plutarch. in vit. Demet. Polyæn. Strateg. lib. iv. cap. 6. Plin. Hist. Nat. l. vi. cap. 4.—(*d*) Diodor. Sicul. lib. xx. Plut. in vita Demet. Aul. Gell. Noct. Att. lib. xv. cap. 31.—(*e*) Tit. Liv. lib. xxxiii. xxxvii. xxxviii. Polyb. xvi. Appian in Syriacis.—(*f*) Tit. Liv. lib. xlv. xlv. Polyb. Legat. 86. 93. Appian in Syriacis.—(*g*) Liv. Epitom. lib. lxxviii. Diodor. Sicul. in excerpt. Valef. Appian in Mithridat. cap. ix.—(*h*) Sueton in Vespasian. Euseb. in Chron. Oros. lib. vii.

are so addicted to their own customs, and so zealous for their liberties, that their efforts are always vigorous, and often irresistible. To settle and confirm this opinion, we need only to reflect, that when the knights of St. John were in possession of this very island of Rhodes, though, from many circumstances of their order, they stood deprived of some capital advantages for the defence of this country, yet they behaved themselves so gallantly against the forces of the Ottoman empire, under the reign of Mohammed the Second, who had made himself master of Constantinople, over-ran Greece, and added several of the provinces of the Persian empire to his own, that his fleet and army were at length obliged to retire, much diminished by their losses (*i*). Afterwards the island was reduced by Soliman the First, who brought a greater force, and came thither in person; but the dispute lasted several months, the defence was prodigious, and, after all, the capitulation honourable (*k*).

WE may likewise remember that Crete, under the modern name of Candia, was defended, for many years by the Venetians, against all the strength of the Turkish empire, in the zenith of its power; and perhaps that wise republic got more by the diminution of the enemy's maritime and military force, which some judicious authors think the Turks have never recovered, than they suffered by the cession of the island, which was, notwithstanding, the greatest loss that state ever felt (*l*). We might mention to the same purpose the war of Cyprus, and the several defeats the Turks have sustained in their attacks upon Malta; and in our own times, their repulse at Corfu, which was in a manner wholly owing to its situation, if we except the intrepid valour and great military skill of General Count Schuylembergh, who rendered his name immortal by defending it (*m*). This proved also fatal to the Ottoman power, which from that time has given little umbrage to christendom by sea; and most evident it is, that if a very few of those numerous islands that formerly belonged to the Greek empire, had been properly fortified, or which had been still better, left under a free government, which is the best of all fortifications, the Turks had never grown so potent as they now are, and many pleasant, rich, and fruitful countries, which under their tyranny have been depopulated, and rendered deserts, might have been preserved in that state of beauty and fertility in which they still bloom in history; theatres of happiness to their own inhabitants, and, by their commerce, of universal utility to the human species (*n*).

(*i*) Turfellini Hist. Universalis, lib. x. Knolles's History of the Turks, p. 432. Vanel, Histoire generale des Turcs, tom. ii. p. 164.—(*k*) Doctor Blair's Chronological Tables, pl. 51. Fontaine de Bello Rhodio, libri tres. Cantemir Histoire de l'Empire Othoman, liv. iii. chap. 1.—(*l*) Vite e Fatti d'alcuni Imperatori Ottomanni, p. 179. Histoire du Siege de Candie, Amsterdam, 1671, 12°. Cantemir Histoire de l'Empire Othoman, tom. iii. p. 111. 114.—(*m*) The Wars of Cyprus by R. Midgley. Etat de la Puissance Othomane, avec les Causes de son Acroissement, et celles de sa Decadence, p. 96, 97. Mercure Historique, vol. lxi. p. 374.—(*n*) See the Voyages of Wheeler, Spon, and Tournefort.

WE have now sufficiently discussed the advantages given to those who inhabit islands, from that very situation, to maintain their governments longer, and in greater purity, by which I would be understood to mean freedom, than nations seated on the continent; and we have also pointed out the many benefits arising from this situation, in respect to the capacity of defence, against even the greatest superiority of force: we will now endeavour to illustrate the superior advantages they have in respect to commerce, which, it may be, the reader will think superfluous, considering that the states we have already mentioned, owed the beginning and continuance of their grandeur to this cause, and from thence also, in a great measure, acquired that power of defending and supporting themselves, for which they have been already celebrated. But, in order to understand a subject thoroughly, we cannot consider it in too many different lights: for these reasons, and that we may at the same time diversify our remarks as much as possible, we will succinctly describe the advantages arising simply from this situation, to some particular island in every quarter of the globe, and make such a choice of these instances as that they may least resemble each other, and have still less affinity with those that we have already considered.

VENICE, the eldest commonwealth in Europe, is an island, but an island of a very singular kind, being an artificial conjunction of upwards of seventy natural islands, none of them of any great consequence taken singly, but when thus united, make the basis of a very considerable city (*o*). They lie in the sea, divided from each other by shallows, or, as they stile them, lagunes, some so close as to be united by bridges; others at such a distance, that the channels between them serve as a kind of streets, through which the inhabitants pass, not in carriages, but by boats (*p*). This city is five miles distant from the continent, and about the same distance from the causeway that defends them from the sea, almost forty miles in extent, which they call the LIDO, through which there are several openings that admit boats, and one on the grand canal, well fortified at Malamoco, which may be from thence stiled the port of Venice (*q*). It is well enough known that these islands were gradually settled, by people who took shelter in them from the invasion of the Huns, and who, for their subsistence, had recourse to fishing, and to a coast trade, on both sides the gulph, which lay open before them. By their great industry and address they quickly became easy, and by degrees they grew considerable. That navigation, which was always necessary, and that correspondence, which was ever commodious, became first sources of their wealth, and then of their power; for they were long distinguished by their diligence and dexterity

(*o*) Spon Voyage d'Italie, tom. i. p. 54, 55. Della Repubblica e Magistrati di Venetia libri cinque da Gasp. Contarini, in Venetia, 1650, 12^o. Sanfovino Venetia Descritta.—(*p*) Ray's Travels, vol. i. p. 126. Voyages de Max. Misson. Laffell's Travels.—(*q*) Sir George Wheeler's Travels, p. 2. Atlas Maritimus et Commercialis, p. 166. St. Didier, Ville et Republique de Venise.

as seamen and traders, before they became at all formidable as a republic (*r*). Their safety and their grandeur were the effects of their adhering steadily to a few wise maxims, to guarding against untoward events, as much as they were able, and availing themselves of such as were favourable as far as it was possible. In process of time they gained a footing on both sides of the continent; their situation exempted them from the dangers and calamities that befel their neighbours, and they profited equally by the fall of the Western empire, and that of the East. They became possessed of many considerable islands, of which Cyprus and Candia were the chief; they drove a prodigious traffic on all sides, and with all nations (*s*); they fetched spices, and other commodities of the Indies, from the Black Sea, after the fall of Constantinople, and afterwards from Alexandria; they dispersed these, and all the rich merchandize of the Levant, through the rest of Europe, to this island of ours in particular, so late as the reign of Queen Elizabeth (*t*). In a word, they became what Tyre was, the common center of traffic; but at length lost a great part of what their wisdom had attained, by those vicissitudes which no wisdom could prevent. Their force was broken by an alliance of almost all the princes of Europe against them, in the league of Cambray; in their mercantile capacity they suffered still more, by the discovery of the new route to the East Indies by the Cape of Good Hope; and being thus weakened, they were the less able to defend themselves against the power of the Ottomans, who stripped them of one country, and of one island after another, till, towards the end of the last century, they were reduced to what they are at present (*u*). In spite of so many difficulties, and the malice of such potent enemies, that they have continued a free state, their government unaltered, and their capital unattacked, for thirteen hundred years, is sufficient to render them venerable in our eyes, and to recommend the steadiness of their conduct to our most serious attention.

ASIA formerly offered us an instance, in many respects, not unworthy of being compared to Venice.

DIRECTLY in the mouth of the bay, which separates Arabia from Persia, lies a small island called Ormus, more properly Hormuz, which divides that inlet into two parts, one usually stiled the gulph of Ormus, commencing at Port Guadel in Persia, and Cape Ras al Gât in Arabia, and extending to this island, about one hundred leagues; the other is named the gulph of Basrah,

(*r*) Marcolini dell'origine di Venetia. Flavius Blondus, de origine et gestis Venetorum. J. Baptist Veri, rerum Venetorum libri quatuor.—(*s*) Andreae Mauroceni Senatoris Historia Venetæ, libri xviii, fol. 1623. Historia della Repubblica Veneta, da Batista Nani, 1662—1679, 4°. Gratiani Historiar. Venetarum, libri xxii, 4°. 1728.—(*t*) Coronelli Singolarità di Venetia e del suo Dominio. Essais de l'Histoire du Commerce de Venise in 12°. Sir William Monson's Naval Traacts, in Churchill's Collection.—(*u*) Garzoni, Storia della Repubblica di Venezia, 4°. Amelot de la Houssaie, Histoire du Gouvernement de Venise. Addison's Remarks on several Parts of Italy. Beawes's Lex Mercatoria Rediviva, p 712. Dictionnaire de Commerce, tom. ii, col. 481.

as reaching from Ormus to the mouth of the river Tigris, near which that city is seated, the space of almost two hundred leagues (*w*). In extent this isle is computed at about seven English miles, distant about five from the continent of Persia, and somewhat more than twenty-five from that of Arabia. Thus inconsiderable in size, it may be, without exaggeration, styled, in all other respects, of all islands the most disagreeable. A high mountain that runs thwart it from East to West, is believed to have been anciently a vulcano, and on its extinction has been left little better than a heap of rubbish, composed of uncouth rocks, dark caves, and dismal precipices (*x*). Though in the latitude of twenty-seven degrees and thirty minutes north, the reverberated rays of the sun render it one of the hottest places on the globe. The soil, if it deserves that name, is a mixture of salt and sulphur; the very stones are a mineral salt; and though there are three pretty clear rivulets that run from the bottom of the mountain, yet their water is as salt as that of the sea into which they fall (*y*). At the north point, from the foot of the hill to the sea, lies a plain about a mile in extent, on which stood the city and castle of Ormus, the pride and glory of the East, the magnificence of which was expressed after the oriental manner in this phrase, "That the world being round as a ring, Ormus might be considered as its jewel (*z*)."

It was the capital of an Arab monarch, who had dominions on both the Persian and Arabian continents, till the Portuguese rendered him their vassal; and knowing the value of the place, improved, as well as preserved it. Hither, at the proper season of the year, resorted the merchants from Persia, Arabia, Turkey, and all parts of the Indies, where they were met by the caravans from Aleppo and Tripoli, and by factors from Venice, and other parts of Europe (*a*). At these seasons, which were from January to March, and from the beginning of September to the close of October, the city wore a new face; the outsides of the houses were adorned with cabinets of China, and beautiful paintings; their shops were so covered as to exclude the scorching beams of the sun; all the riches of the east blazed in the eyes of the captivated spectator; and in a country producing nothing, and where the people received even the water they drank from the opposite shore, all the necessaries, conveniences, and even luxuries, the inflamed appetites of men could desire, were furnished in profusion, and successive scenes of business and pleasure, rendered

(*w*) Peritfol Itinera Mundi, cap. 26. Luyt's Introduct. ad Geographiam, § 3. cap. 18. Hebelot Bibliothéque Orientale, p. 457, a.—(*x*) Relationes de Pietro Texeira, cap. 2. G. Batt. Ramusio Racolti delle Navigazioni et Viaggi, tom. i. fol. 187, 292, 337, 338. Mr. Newberry's Travels, preserved in the second volume of Purchas's Pilgrims.—(*y*) Hackluyt's Collection of Voyages, London, 1589, p. 47, 211, 214. Voyages de Thevenot, tom. iv. p. 479. Recueil des Voyages de la Compagnie des Indes Orientales, tom. ix. p. 337.—(*z*) Viaggi di Pietro della Valle, tom. ii. p. 524—538.—(*a*) Voyage de Schouten, tom. i. p. 465. Voyages de J. B. Tavernier, P. i. liv. v. chap. 23. P. Laffitau, Histoire des Decouvertes et Conquestes des Portugais, tom. i. p. 355, 360, 368.

it at once the richest and most delightful place in that part of the world (*b*).

THE settling this celebrated mart in this isle, was not the effect of chance, but choice. The princes who possessed it reigned formerly in the city of Ormus, on the coast of Persia; but the mercantile turn of their subjects having rendered them exceeding wealthy, exposed them so frequently to the ravages of their barbarous and rapacious neighbours, that they voluntarily abandoned an agreeable country to fix themselves in this desolate isle; where, by the help of two tolerable ports, they maintained an extensive commerce, and, under the shelter of their fortifications, and by the strength of their maritime power, lived secure from those plunderers to whom they had formerly been a prey (*c*). This city was founded at the entrance of the fourteenth century; and the famous Persian monarch, Shah Abbas, with the assistance of the English, destroyed it in 1622, in hopes of transferring the trade to Gambroon or Bander-Abassi, i. e. the port of Abbas; the moiety of the customs of which port he granted the English for their good service. But this proved no very good bargain to us; and Gambroon is far from being what Ormus was (*d*). So much does success, in such designs, depend upon circumstances, and, in all respects, upon a commodious situation, as this instance plainly shews us.

WITHIN the seas of Africa we shall likewise meet with an island that falls in exactly with our purpose.

It lies in the latitude of twenty and twenty-one degrees south, the climate warm, but very wholesome, the soil stony, and encumbered with high rocks and lofty mountains along the coasts, but within land tolerably flat and fertile, exceedingly well watered, abounding with fish, fowl, and cattle, plentifully stored with ebony, and other valuable woods, and, in point of extent, large enough to invite and support a considerable colony (*e*). In the beginning of the sixteenth century it was discovered by the Portuguese, who knowing that Pliny, and other ancient writers, had mentioned the island of Cerne in these seas, took it for granted that this must be it, and accordingly we find it stiled Cerne, or Sirne, in their maps (*f*); but notwithstanding this, they did not think fit to settle it; and indeed their force was so small, in comparison of the vast dominions they grasped, that it was very excusable. However, according to their laudable custom, they put some hogs, goats, and other cattle upon it, that in case any of their ships either going to the Indies, or returning to Portugal,

(*b*) Atlas Maritimus et Commercialis, p. 193. Dictionnaire de Commerce, tom. ii. col. 706, 707, 708. Deslandes Essai sur le Marine et sur le Commerce, p. 184, 185, 186.—(*c*) Chron. Regum Ormuzii, cap. 2. Manuel de Faria y Sousa Asia Portuguesa, tom. i. p. ii. cap. 2. Maffei Historiar. Indicar. p. i. lib. iii. cap. 9.—(*d*) Mr. Monoux's large Account of the taking of Ormus. Voyage de G. Schouten, tom. i. p. 464, 465, 466. Otter Voyage en Turquie et en Perse, tom. i. chap. 20.—(*e*) Luy's Introd. ad Geograph. sect. iv. cap. 5. Ogilby's Description of Africa, p. 715. Du Bois Geographie Moderne, p. iii. ch. 18.—(*f*) See the Maps and Charts in Vander Aa's Collection of Voyages.

should be obliged to touch there, they might meet with refreshment's (g). The Dutch, in the second voyage they made to the East Indies under their Admiral James Cornelius Vanneck, came thither with five ships on the 15th of September, 1568, anchored in a commodious port, to which they gave the name of Warwick Haven, and gave a very good account of the place in their journals (h). Captain Samuel Castleton, in the Pearl, an English East India ship, arrived there on the 27th of March, 1612, and taking it to be an island undiscovered before, bestowed upon it the name of England's forest, though others of his crew called it Pearl island, and in the account of their voyage, written by John Tatton, the master of the ship, celebrated it as a place very convenient for shipping, either outward or homeward bound, to refresh at. This they sometimes accordingly did, and brought some cargoes of ebony and rich wood from thence, but without fixing any settlement (i).

At length, in 1638, the Dutch seated themselves here; and it is highly remarkable, that at the very time they were employed in making their first settlement, the French sent a vessel to take possession of it, who found the Dutch before-hand with them, and refused the assistance of an English Indiaman, wooding and watering in another port of the island, who very frankly offered it, to drive the Dutch from their half-settled posts (k). They continued for some time in quiet possession of the places they fortified in this island, to which they gave the name of Mauritius; but having engaged the French, who were settled on Madagascar, to steal fifty of the natives, and sell them for slaves, for the improvement of the Dutch settlements here, this proved the ruin of both colonies; for the negroes surprised and massacred the French in Madagascar; and the slaves in Mauritius fled into the center of the island, from whence they so much and so incessantly molested those who had been formerly their masters, that they chose to quit a country where they could no longer remain in any tolerable degree of safety (l). The East India company however, from motives of conveniency, and a very imperfect notion of its value, disapproved this measure, and therefore ordered it to be resettled; which was accordingly done, and three forts erected at the principal havens. Things now went on somewhat better than they did before; but they were still very much disturbed by the revolted negroes in the heart of the isle, whom they could never subdue. One principal use that the company made of this place, was to send thither state prisoners, who, as they were not men of the best morals, quickly corrupted the rest of the inha-

(g) Purchas's Pilgrimage, p. 780. F. Valentyn, oud en nieuw Oost Indien, tom. i. p. 175. Martiniere Dictionnaire Geographique, tom. iv. p. 180.—(h) Recueil des Voyages de la Compagnie des Indes Orientales, tom. ii. p. 157.—(i) Purchas's Pilgrims, vol. i. p. 331.—(k) Relation du Voyage de François Cauche de Rouen, &c. p. 3.—(l) Leguat Voyage aux Indes Orientales, tom. ii. p. 75. Hamilton's new Account of the East Indies, vol. i. p. 29. Gentil de la Barbinais Tour du Monde, tom. iii. p. 203.

bitants, and rendered them such a race of outrageous smugglers, the situation of the place concurring with their bad dispositions, that after various ineffectual attempts made to reform them, orders were at length given to abandon Mauritius a second time, which, after some delays, were put in execution in the year 1710 (*m*).

IN this deserted situation, it was occupied as a derelict, we cannot precisely say when, by the old French East India company, who bestowed upon it the name of the ISLE of FRANCE, by which, amongst their other possessions, it was granted to the present perpetual company of the Indies, who caused it to be settled, and, as if it had been a place of great significance, procured an edict for establishing a provincial council there, dependant upon that in the isle of Bourbon; both which councils however were, in all respects, below the very meanest corporation in this country, yet that of the isle of France was by much the meaner of the two (*n*). In truth it had cost so much, and was considered in every light worth so little, that it had been more than once under deliberation, whether, after the example of the Dutch, they should not leave it again to its old negro inhabitants; which sooner or later in all likelihood would have been its fate, if, in 1735, the famous Mr. de la Bourdonnaye had not been sent thither, with the title of Governor General of the French islands. (*o*).

HE found this isle in the worst state possible, thinly inhabited by a set of lazy people, who equally hated industry and peace, and who were continually flattering this man to his face, and belying him where-ever, and as far as they durst. He gave himself no trouble about this, having once found the means to make himself obeyed; he saw the vast importance of the island; he conceived that it might be settled to great advantage; and, without so much as expecting the thanks of those for whom he laboured, he began to execute this great design (*p*). His first step was to bring over black boys from Madagascar, whom he carefully trained up in good principles, and in continual exercise; by which he rendered them so good soldiers, that he very quickly obliged the Marones, or wild negroes, either to submit or to quit the island: he taught the planters to cultivate their lands to advantage; he, by an aqueduct, brought fresh water to the sea side; and whereas they had not so much as a boat at his coming thither, he made a very fine dock, where he not only built floops and larger vessels, but even a ship of the burthen of five hundred ton. However incredible it may seem, yet it is certainly fact, that in the space of five years he rendered this coun-

(*m*) Martiniere Dictionnaire Geographique, tom. iv. p. 180. Barbinais Tour du Monde, tom. iii. p. 115. Guyon Histoire des Indes Orientales, tom. iii. p. 203. —(*n*) Histoire de la Compagnie des Indes, p. 145. 358. Dictionnaire de Commerce, tom. ii. col. 1069. Memoire de Mr. de la Bourdonnais, tom. i. p. 14. —(*o*) Provision de Gouverneur General des Isles de France et de Bourbon pour le Sr. Mahé de la Bourdonnais. —(*p*) Memoire de Mr. de la Bourdonnais, tom. i. p. 15. Supplement au Dictionnaire de Commerce, col. 135. Relation de la Isle de France.

try a paradise, that had been a mere wilderness for five thousand, and this in spite of the inhabitants, and of the company, who being originally prejudiced by them, behaved ill to him at his return (q). He soon made the Cardinal de Fleury, however, sensible of the true state of things, and compelled the company to acknowledge, though they did not reward, his services. He afterwards returned, as all the world knows, into the Indies, and perfected the work he had begun; and to him it is owing that the ISLE of FRANCE is at present one of the finest, as it was always one of the most important and improveable spots upon the globe (r).

AMERICA shall yield us our last instance.

CURAÇAO, or Curraffaw, lies in the latitude of twelve degrees forty minutes north, and is an island near thirty miles long, and about half as many broad. The soil is far enough from being fruitful, and the climate is not either wholesome or agreeable. There were however, formerly, some pretty tolerable pasture grounds, which fed a vast quantity of cattle, but these have been long ago destroyed, in order to make way for sugar and tobacco (s). At present it is confidently affirmed, that the whole produce of the island would not subsist the inhabitants twenty-four hours; yet such is the wisdom of the Dutch government, that there is no place in the West Indies where want is less felt or feared (t). On the south side there is a very fine town, and a very safe and commodious haven; though a little troublesome at the entrance, which does not hinder it from being one of the most frequented ports in America, and if so figurative an expression may be allowed, notwithstanding nature seems to have done as little in favour of this isle as she ever did for any, yet the Dutch have not only supplied all her deficiencies by art, but have likewise converted many natural defects into advantages; so that where one would reasonably expect to meet with a poor and necessitous people, holding very little correspondence with their neighbours, we in reality find a rich and populous city, full of magazines of all sorts of goods, and a port where ships not only ride in the greatest safety, but by the help of a variety of engines are lifted into convenient docks, where they are careened with wonderful expedition, and furnished with rigging, naval stores, and even artillery, if they are wanting (u). The vicinity of the Spanish main is the principal source of their wealth and trade; and, in former times, the single article of slaves has produced a million. At present they deal more in goods, of which they have immense quantities lying by them, that, from day to day, find

(q) *Memoire de Mr de la Bourdonnais*, tom. i. p. 29-37.—(r) *Relation de la Ile de France*. *Memoire de Mr. de la Bourdonnais*, tom. i. p. 23. *Supplement au Dictionnaire de Commerce*.—(s) *Luyt's Introd. ad Geographiam*, sect. v. cap. 7. *Robbe Methode pour apprendre la Geographie*, vol. ii. p. 378. *Salmon's Geographical Grammar*, p. 638.—(t) *The Importance of the British Plantations in America*, p. 49.—(u) *Harris's Voyages*, vol. ii. p. 370.

their way to the most proper markets (*w*). In the mean time, English, French, Danish, Portuguese, and Spanish ships, are as welcome as Dutch, and as well treated. Of this we had an instance when the present Admiral Knowles attacked La Guira and Porto Cavallo, when they very kindly supplied us with cables, ammunition, and even with men; so that we had infallibly succeeded in our design, if, with the same liberality, influenced by the same motive, a very high price, they had not furnished the enemy previously with such quantities of military stores, as rendered our attempt abortive (*x*); and thus gaining by every way, and from every hand, they draw annually immense sums into Holland, from a country, that, to any other masters, had been utterly useless (*y*).

THUS the reader sees many things in these which did not appear from the former examples; and that my meaning may be apprehended still more clearly, I shall on both make a few general observations. The first is, that these places derive all those amazing advantages, in respect to strength, security, and convenience, from this single circumstance of their being islands. This situation suggested the possibility of making them what they were, or are; and stripping them of this, they must appear in a light not disadvantageous only, but even contemptible. In the next place, it deserves particular notice, that deriving this sole benefit from Providence, these places stood indebted for all their other improvements, to the distinguishing sagacity, the constant attention, and the indefatigable diligence of men; so that whatever wonderful and surprizing changes any of these isles may have undergone, they were perfectly natural and imitable; and of course the like salutary alterations may be brought about anywhere, and at any time, and in any islands, supposing them only to be inhabited by honest, prudent, industrious people, enjoying absolute freedom, or, which is still better, the blessing of a mild and equitable constitution. Let me add to all this, that seeming defects, or even real ones, if they be but small, though they may more or less impede, yet can they not absolutely defeat this high prerogative. Where-ever therefore we see it bestowed in vain, that is, where islands are thinly peopled, we must conclude, that the fault lies not in the places, but in some untoward circumstance that regards those people. They are poor, and want abilities, or they are barbarous, and consequently ignorant of what actually lies in their power; or, they are oppressed to such a degree as prevents their struggling; or their misery proceeds from a complication of these mischiefs, which if by any means they can be removed, such islanders, though they freeze under the pole, or fry under the line, will most certainly avail themselves of their

(*w*) *Memoires sur le Commerce des Hollandois*, p. 183. *Dampier's Voyages*, vol. i. p. 45. *History of Spanish America*, p. 302.—(*x*) *Harris's Voyages*, vol. ii. p. 370.—(*y*) *The Importance of the British Colonies in America*, p. 45--50. *Dictionnaire de Commerce*, tom. ii. col. 1020. *Atlas Maritimus et Commercialis*, p. 333.

situation,

situation, and give them but once spirit and science, will do justice to the rich portion bestowed upon them by nature.

A FEW more particular remarks upon those instances which have been last produced, will set this point in so strong a light, that men must shut the eyes of their understandings not to discern it; and therefore I presume upon the reader's forgiveness, for pressing it in the manner I do, and intreating him to reflect seriously on the capital circumstances before selected, and that have been established on incontestable evidence. For instance, that a loose cluster of little low marshy islets, so miserably insignificant in their appearance, as never to attract an inhabitant, till such time as the scourge of necessity drove men thither for shelter, as into places that would be envied them by few, and which might be defended against all, becoming thus, as it were by accident, the object of human sagacity, and the continued subject of human industry, should, in consequence of this attention and application, entirely change their appearance, and a magnificent city, at once an opulent mart, and the mistress of a mighty state, emerge from weeds and mud, as if she meant to explain the ancient fable of Venus rising from the sea, are facts that speak the strongest and most persuasive language. Again, when he beholds the very reverse of this, an island, selected for its deficiencies, and preferred for its wants to better countries, on more than one continent, and made from these very motives the seat of power and commerce, though naturally incapable of supporting a single family, must he not conclude that there is nothing can equal the privilege of this situation? Can he avoid perceiving that islands, often possessed, deserted, and overlooked, retain still their intrinsic value, and, like jewels that have passed through the hands of ignorant workmen, without revealing much of their lustre, discover nevertheless their innate, and, till then, concealed splendour, whenever they come to be wrought by a man of skill, who is acquainted with the alphabet of nature, and can read at first sight those deep hid powers which escaped the eyes of others? He, from the last instance, must be convinced, that genius, labour, and perseverance, can conquer all the difficulties that can ever embarrass an insular situation, convert the seeming errors in their unimproved state into advantages, and render that country a wonder, which had been otherwise but a wilderness. By contemplating these, a penetrating and judicious peruser will so instruct himself, as to become, to a certain degree, a genius of this kind; at least it will open his views and extend his prospect, remove the doubts he had at the beginning of this chapter, oblige him to believe that there is something inexpressibly happy in this sort of situation, and prepare him to conceive clearly, and comprehend fully, what is the proper subject of this book, the prerogatives of Britain.

CHAPTER IV.

IT is the interest and duty of the members of a free state to be perfectly acquainted with their country. The situation and extent of the British islands. The climate, taken in general, temperate and wholesome; a proof of this derived from the longevity of its inhabitants. Fecundity, another proof of the same thing. Corporal endowments, in respect to the inhabitants, a third proof. A stronger proof still arises from their genius. The uncertainty of our climate has some very signal conveniences, which are copiously enumerated. The common objections on this head fully answered. Our soil as fruitful as our climate is moderate. Happily diversified, which is the source of many and great advantages. Productive of roots, plants, herbs, fruit, and timber trees, in a prodigious abundance. No less distinguished by nourishing animals of every kind. Yet more happy in its capacity of improvement, than in its actual fertility. The geographical distinction of climates to be received with caution. The climate of Moscow considered. Remarks on the situation of Stockholm. That of Copenhagen described, and inferences drawn from these accounts. The distinguished blessings we possess, due entirely to the situation of these islands. Concurring proofs of this assertion. Impossible to have enjoyed these benefits if otherwise seated.

THE love of our country, like all other natural passions, is in itself not only innocent, but laudable; though it may also, for want of being kept within due bounds, become the source of error, and, in consequence of that, subject us to ridicule. We are offended when we find the Greeks and Romans, at every turn, calling all other nations barbarians (a). We treat contemptuously such kind of distinctions, when introduced by the moderns; and very justly blame a mixture of pride and prejudice, that serves to maintain causeless animosities, without so much as having one good effect. That a man ought to love his country merely because it is so (b), is out of dispute; but he ought not to magnify it beyond the truth, since if this proceeds from an over-weening fondness, it is downright folly; if from a design of imposing on others, it is falsehood. But, on the other hand, we are assuredly at full liberty to maintain the honour of our country against the prejudices, mistakes, and misinformations, that may have misled strangers; and so long and so far as we have veracity on our side, we need be under no apprehensions of transgressing the bounds of decency. It is highly commendable

(a) Thucyd. de Bello Pelopon. lib. i. Diog. Laert. lib. i. cap. 9. Plat. Cratyl. p. 452. Strabon. Geograph. lib. iv. Cæsar de Bello Gal. lib. iv. Lucii Flori Hist. Rom. lib. iii. cap. 2. Eutrop. Hist. Rom. lib. iv. Martial. Epigram. lib. i.—(b) Cicer. de Orat. lib. i. ad Planc. Familiar. lib. x. de Offic. lib. i. Senec. Rem. For. Horat. lib. ii. carm. 2. Ovid de Pont. lib. i. Senec. Troad.

to examine this point minutely, and to understand it exactly, that we may be at all times in a condition to speak pertinently on a subject so frequently brought upon the carpet, and in respect to which, in a free country especially, every member of this society has such an immediate interest, that he ought intimately to know his country, from the same principles that lead him to know his own estate (*c*). With this view, and that we may be the more able to render service to the public, and discern what may turn to her detriment, what to her advantage, after having made the previous inquiries we judged the most requisite, in order to strengthen our judgment, we will address ourselves to the taking a candid survey of this island.

GREAT BRITAIN, comprehending the two kingdoms of England and Scotland, now united into one, and the principality of Wales, considered geographically, stretches from the Lizard Point, in the latitude of about fifty degrees, to Duncsbay Head, in the latitude of fifty-eight degrees thirty minutes north; or taking it from south to north, in a strait line, about eight degrees, or five hundred and fifty miles; and from Dover Head, east to the land's end, west, contains about seven degrees and a half of longitude, which, in round numbers, may be computed at about two hundred and ninety miles: but the form being very irregular, and lessening considerably towards the north, proper allowances must be made in computing its dimensions. With respect to Ireland, which we consider, and it was likewise so considered by the ancients, as a part of Great Britain, it extends from fifty-one degrees and a quarter, to fifty-five degrees and a quarter, north latitude, making in the whole about two hundred and fifty miles; and from Hoath Head by Dublin, to Dog's Head in Galway, somewhat more than four degrees in longitude, which makes about one hundred and fifty miles (*d*). Although taking them in the light they are here represented, there is no reason to doubt that these measures are tolerably just, and as correct as they need be for our purpose, yet it may not be amiss to compare them with what we find delivered by authors of credit in a long series of ages. Cæsar, who equally employed his sword and his pen in subduing and describing this island, tells us, that it was triangular; that the side opposed to France, was five hundred miles in extent; that fronting Spain, seven hundred; and that which regarded Germany, eight hundred, making two thousand in the whole. In his days it was rather supposed, than known to be an island; but, notwithstanding this, his sentiments were followed, at least for a long time. In the age of Pliny, many conceived the British islands much larger, and though Agrippa assigned eight hundred miles for the length, and three hundred for the breadth of Britain; and Ireland to contain three hundred one way, and

(*c*) Cicer. de Orator. lib. i. Senec. Epistol. lib. iii.—(*d*) Allowing for the respective differences in the degrees of latitude and longitude, as they approach toward the pole, agreeable to the best geographical Writers.

six hundred the other; yet there wanted not some amongst the learned who thought these dimensions rather too large. Orosius computes the length of Britain at eight hundred miles, and the breadth at two hundred, in which he is followed by venerable Beda, and many of our old historians. In like manner, Robert of Gloucester fixes the length at eight hundred; but then in most copies, the breadth is computed at four hundred; though in some it is, as perhaps it should be in all, only two hundred. Polydore Virgil, who really took a great deal of pains, informs us, that from Dover to the extremity of the north of Scotland, might be seven hundred miles; from Dover to St. Michael's Mount in Cornwall, three hundred; from St. Michael's Mount to the north of Scotland, eight hundred; making the circumference one thousand eight hundred miles. It is an error worth remarking, that this writer makes the length of England, from south to north, but three hundred and twenty miles, and Scotland four hundred and eighty; but at the same time he observes, that though it be longer than England, yet it is much narrower (*e*). The accurate Mr. Camden, who speaks of this matter as if he had weighed it thoroughly, admits the island to be of a triangular form, as the ancients assert, and therefore compares it to Sicily (*f*). That he may explain himself more clearly, he begins with ascertaining the three angles. Belerium, as it was called by the Romans, which is probably the Antiveſtæum (more truly Antiveſtrium) of Ptolemy, that is, in the language of the old natives, an divez Tir, i. e. Finis Terræ, or the land's end (*g*) in the west; Cantium, the Kentish foreland in the south; Tarvisium, or Orcas, in the language of the old inhabitants, Tar iūſion, i. e. Venter Aquarum, Faro Head, or rather Duncsbay, that is, Duncan's-bay-head in Cathness, in the north. He then tells us, that from Cathness to the land's end, reckoning the windings and turnings of the shores, along the west side, are computed eight hundred and twelve miles; from thence, along the southern coast to the Kentish foreland, three hundred and twenty miles; from the Kentish foreland, coasting the German ocean to Cathness, seven hundred and four miles; so that, by this computation, the whole island is in circuit one thousand eight hundred thirty-six miles, which falls much short of Pliny's, and is also somewhat less than Cæsar's account. We will add to these, which are not matters of mere curiosity or speculation, but which will hereafter have their use, a more modern computation, that pretends to geometrical certainty. The author of this was the famous Doctor Nehemiah Grew (*h*), who, in opposition to what he says was the prevailing opinion, that England, or South Britain, measured three hundred and five miles in length, and two hundred

(*e*) Jul. Cæsar, de Bello Gall. lib. v. Strabon. Geograph. lib. iv. p. 199, 200. Plin. Hist. Nat. lib. iv. cap. 16. Bed. Hist. Eccles. lib. i. cap. i. P. Orosius, Hist. lib. i. cap. 2. Polydor. Virgil. Hist. Angl. lib. i. Robert of Gloucester's Chronicle, p. i.—(*f*) Camden. Britan. Lond. 1607, p. 2.—(*g*) Baxteri, Glossar. Antiquit. Britan. p. 19, 36, 224.—(*h*) Philosophical Transactions, N^o. cccxxx. p. 266.

and ninety in breadth; asserts, that from Newhaven in Suffex, which lies in the south of England, to London, are fifty-six measured miles, by the wheel; and from London to Berwick, three hundred thirty-nine miles; so that the true length is three hundred ninety-five measured miles, and the true breadth, from the South foreland to the land's end, three hundred sixty-seven miles of the like measure. According to this method of computation, the length of Scotland must be about two hundred thirty-seven miles, and consequently the true length of the island six hundred thirty-two such measured miles.

THE climate, though we sometimes hear it censured, as being subject to frequent and considerable alterations, is, upon the whole, both temperate and wholesome, insomuch that we seldom stand in any need of furs to defend us from the severity of the cold in winter, and have more seldom reason to complain of any insupportable heat in summer (*i*). If therefore our weather be, as is commonly alledged, in general less steady and serene than in some other countries of Europe, it is not so sultry in one season, or so rigorous in another. We are subject in a smaller degree to storms of thunder and lightning; to long piercing frosts, and deep snows; and though we have a full proportion of rain, in Ireland particularly, yet it falls moderately, and not with such weight and violence as to produce sudden and dangerous inundations. Our seasons are so kindly as to ripen all sorts of grain, and of some sort or other, in all the different parts of the island (*k*); to furnish us with a great variety of excellent fruit, and to afford us the most luxuriant pastures, by the confession of most of our neighbours; so that what was heretofore said (*l*), still continues true, that except wine, oil, and a few rich fruits, that are the peculiar blessings of hotter climes, this country derives from warmth and vegetation all that its inhabitants can be justly said to want, or indeed that they can reasonably wish or desire.

BUT, not to deal entirely in generals, there are some particular circumstances, which are justly held to be characteristics of the excellency of the circumambient fluid. Of these, the first is longevity, which is the clearest proof of a climate's being wholesome; and, with a reasonable proportion of trouble, we might give examples of this in almost every part of these islands. For instance, Mr. Carew (*m*) tells us, that there lived in his time, in Cornwall, one Polzew, who reached the age of one hundred and thirty; a kinsman of his lived to one hundred and twelve; one Mr. Beauchamp, to one hundred and six; and which is still stronger, that there died in his own parish, in the short space of fourteen weeks, four persons, whose years made together three

(*i*) Cæsar. de Bello Gal. lib. v. Cicer. de Natura Deorum, lib. ii. Strabon. Geograph. lib. iv. Corn. Tacit. in Vit. Agric. Cæcilius Getulicus.—(*k*) Jul. Solini Polyhist. c. 24. Joan. Boernus Aubanus, de Moribus omnium Gentium, lib. iii. cap. 26. Jul. Scaliger, Exercit. 140 et 200.—(*l*) Panegyricus Constantio dictus.—(*m*) Survey of Cornwall, fol. 63.

hundred and forty. The famous Thomas Par, who was born at Alderbury in Shropshire, lived to one hundred fifty-two years (*n*). In Oxfordshire, Doctor Plott tells us of Richard Clifford, living, at Bolscoth, to one hundred and fourteen; Brian Stevens, at Woodstock, and two or three persons then living at Oxford, above one hundred (*o*). Doctor Willet informs us of a man who lived at Eversden, in Bedfordshire, to the age of one hundred and twenty-four (*p*). Doctor Hakewill observes of William, Marquis of Winchester, that he reached one hundred and seven (*q*). Doctor Plott tells us, that Mr. Biddulph, of Biddulph in Staffordshire, had twelve tenants living, whose ages, put together, made a thousand (*r*). Henry Jenkins, of Yorkshire, died at one hundred and sixty-eight (*s*). In Scotland also, some persons have attained to very great ages. Buchanan mentions one, who at a hundred and forty, was able to go out to fish, in a tempestuous sea, in his own little boat (*t*); and Mr. Martin affirms, that one Tairville lived, in Shetland, to one hundred and eighty (*u*). The Countess of Desmond, in Ireland, who was known to Sir Walter Raleigh and Lord Bacon, lived to one hundred and forty (*w*); and many more instances might be given from that island, if that noble author had not cut the matter short, by affirming, that there is not a considerable village almost any-where, in which there is not at least one person of ninety or upwards (*x*). Whatever therefore can be deduced from this point of evidence, we may boldly assert, is fully proved in behalf of these islands; and though it may be doubted whether this will give us any superiority over some parts of Germany, Denmark, Sweden, Norway, or Russia, yet, in the next instance perhaps, we may have as much advantage of the north, as, in this, of some of the southern countries in Europe.

THIS second instance is in regard to fecundity; for in climates remarkably unwholesome, one of the clearest and most apparent testimonies, is the barrenness of women. But in England, we have many memorable examples of persons, of all ranks, and in all parts of both islands, that have been distinguished by their very numerous progeny, and so much the more distinguished, as perhaps one-half, or even a third, would have been esteemed very wonderful in some other countries that might be named. Lettice, Countess-Dower of Essex and Leicester, mother to the unfortunate Earl who was beheaded in the reign of Queen Eli-

(*n*) Philosophical Transactions, N^o. xlv. p. 886 —(*o*) Natural History of Oxfordshire, chap. ii. p. 19 —(*p*) Doctor Andrew Willet's Hexapla in Gen. chap. v. §. 5. p. 68. —(*q*) Hakewill's Apology, lib. iii. p. 183 —(*r*) Natural History of Staffordshire, chap. viii. p. 329 —(*s*) Philosophical Transactions, N^o. ccxxi. p. 266. —(*t*) Rerum Scot. Hist. lib. i. Roberti Sibbaldi Prodr. Hist. Nat. Scot. lib. i. cap. 20. p. 44 —(*u*) Description of the Western Islands of Scotland, p. 373. —(*w*) Sir Walter Raleigh's History of the World, b. i. chap. 5. §. 5. Lord Bacon's Works, Edit. 1753. vol. i. p. 241. See also Dr. Baynard's Appendix to Sir J. Floyer's Treatise on Cold Baths. —(*x*) Hist. Vit. et Mort. apud Baconi Opera, vol. iii. p. 344.

zabeth, lived to see the grand-children of her grand-children (*y*). Jane, the wife of Doctor Phineas Hudson, chancellor of York, died in the thirty-ninth year of her age, of her twenty-fourth child; as did Dorothy, the wife of Mr. Joseph Cooper, of Leeds, of her twenty-sixth (*z*). Mr. William Greenhill, of Abbots-Langley, in Hertfordshire, had thirty-nine children by one wife (*a*). Mrs. Heyrick, of Leicester, lived to see springing from herself, one hundred forty-three descendants (*b*). Mrs. Fenton, of Huntslett, in Yorkshire, one hundred thirty-eight (*c*). Mrs. Honeywood, three hundred and sixty-seven (*d*); and many more might be collected, if it was at all necessary. In North Britain, and in Ireland, this blessing of a numerous progeny, though not greater, is more frequent, because luxury hitherto has less prevailed. If it be objected that this is improbable, because both countries are thinly peopled in comparison of England, we have a very short and conclusive answer; That multitudes, from both these countries, annually withdraw themselves into different parts of the world, from whence they but rarely return; which is the more inexcusable, since, with equal industry, and far less hazard, they might live in both countries happily and honourably at home. It is evident from hence, how very populous these islands might be, if the policy of the state fully co-operated with the excellency of the climate; and it follows, as a necessary consequence, that if any considerable diminution appears in the number of births, without apparent causes, this is never to be attributed to any variation in our climate; which, for reasons that will be hereafter assigned, rather improves than otherwise, but to some vicious alterations in the manners of the people, against which it becomes the wisdom of the government to provide.

THE stature, strength, activity, and other corporal advantages of our people in general, are a third testimony (*e*). It would not be consistent with the design of this work, to point out particular instances of extraordinary stature, wonderful strength, or amazing activity, which yet, if it was necessary or proper, might be very easily done; but it seems wholly sufficient for my purpose, to observe that our troops have been ever allowed, even by our enemies, equal, in all respects, to those of other nations; and that, with regard to our seamen, there are scarce any who can enter into a competition with them. Our sawyers, masons, keelmen, miners, smiths, porters, chairmen, and, in a word, all who exercise trades that require robust and vigorous constitutions, are as remarkable in their several stations here, as in any country throughout the world. Our fishermen, in all parts of the island, are as hardy and as dexterous as any; our

(*y*) Ex Chartulariâ honoratissimi Dni. Vicecomitis de Weymouth, Dni. Manerii de Drayton.—(*z*) Thoresby's History of Leeds, p. 608.—(*a*) Id. ibid.—(*b*) See the Inscription on the Family Tomb, in the Church of St. Martin, in Leicester.—(*c*) Thoresby's History of Leeds, p. 581.—(*d*) Derham's Physico-Theology, b. iv. chap. x. p. 179, 180.—(*e*) The Reader may find numberless instances in Carew's Survey of Cornwall; in Plot's Oxfordshire and Staffordshire; Thoresby's Leeds, &c.

horse-courfers and grooms, distinguished for their proficiency in the management of that noble animal; and our labourers and husbandmen, inferior to none in point of skill, or diligence, or application. In all our mechanic arts, and in that vast variety of different manufactures which flourish in this island, the industry and spirit of those who are employed in them, are eminently conspicuous; and in all their rustic diversions, through the three kingdoms, the lower sort of people afford incontestible evidence, of as hale and vigorous constitutions as in any nation that can be mentioned; in reference to which, whoever shall give himself the trouble to enquire minutely, will find evidence from facts to a degree of satisfaction, perhaps beyond his expectation, and which will leave him not the least room to doubt of the weight and propriety of this argument.

THE genius of the people is another characteristic of the climate; by which we do not mean the fanciful effects that astrologers have ascribed to the influence of the heavenly bodies, but the consequences of a certain disposition of the air, altered in the proper seasons by the impressions of heat and cold, and other vicissitudes of weather, upon the bodies, and thereby on the minds of men, which the soundest philosophy has acknowledged, and which the appearance of many great genii in one country, while few or none are to be found in others, confirms by experience (*f*). Upon this the temper and strength of human minds depend; and as we see some men capable of one thing, some of another, we observe the like diversity in nations, ascribe both to the same cause, and form our notions of the perfection or imperfection of that cause, from the nature of its effects. If therefore genius be the effect of climate, we have not transgressed the bounds of justice in commending that of Britain, since there is hardly any study so elevated, any science so profound, any art so difficult, or so nice, that the inhabitants of these islands have not, in the judgment of the most candid and impartial connoisseurs, investigated with patience and success. In theology, and all the learning depending upon it, what greater names than Usher, Pierſon, Stillingfleet, Barrow, Clarke, and many others. In philosophy, Bacon the monk, his namesake the viscount of St. Albans, the celebrated Mr. Boyle, the sagacious Doctor Hooke, the acute and accurate Doctor Edmund Halley. In mathematical knowledge, besides some of the learned already mentioned, we may boast of the great Doctor Wallis, the judicious Oughtred, the penetrating Harriot, the Lord Merchiston, Sir Christopher Wren, professor Gregory, the ingenious Mr. Machin, professor Sanderson, and, to conclude with the greatest, the incomparable Sir Isaac Newton. Amongst our poets; Shakespeare, Milton,

(*f*) Tit. Liv. lib. v. Cæs. de Bello Gallico, lib. iii. iv. Juvenal. Sat. x. Ammian. Marcel. lib. xv. Alex. ab Alex. Genial. Dies, lib. iv. Bodini Repub. lib. v. Sciliger. Exercit. 10 et 174.

Butler, Dryden, and Pope, have secured to themselves a reputation as lasting as our language. In what are stiled the *Belles Lettres*; Sir Philip Sydney, Sir William Temple, the clear and correct master of the Charter-House, Doctor Burnet, the elegant Mr. Addison, the sprightly and acute Dean of St. Patrick's, the late benevolent Bishop of Cloyne, and many others, will be read and admired as long as men have any relish for good sense, and a just delight in seeing it happily expressed. To these we might add a long catalogue of names, distinguished by their writings of various other kinds, such as the wise and weighty Sir Walter Raleigh, the deepsighted Sir William Petty, the profound Mr. Hobbs, the most able and disinterested Mr. Locke; and every reader's memory will suggest to him many more as striking and conclusive examples.

THE variations in our climate, which some have represented as such terrible inconveniences, are, if more closely considered, very singular advantages. Our seasons, though it must be confessed they do not very nearly resemble those on the continent, yet are not so discordant to the health of strangers, as to hinder them from coming over hither, or from staying here, when other circumstances invite. On the other hand, it gives such vivacity and vigour to the natives, and so habituates them to those changes that are incident to a life of travel, that no people are more addicted to it, perform long voyages or journies with greater ease, or are less affected by the hardships to which, in such expeditions, they are almost necessarily exposed. Let any man read the Dutch voyages (g) to Nova Zembla, and Pelham's Stay in Spitzbergen, or Greenland (h), in a much higher latitude, and it will fully confirm the truth of what I have advanced. This desire of enquiring into, and corresponding with the inhabitants of the most distant countries, has been ever the characteristic of the British nation. So early as the times of king Alfred, the penetrating into the most remote northern countries was not only meditated by his subjects, and approved by that prince, but actually attempted (i). The same monarch sent one of his prelates as far as the gulph of Persia, partly on a political errand (l). Whether America was originally discovered by a prince of Wales, is indeed very uncertain; but that a Welch prince undertook, and made some extraordinary discoveries, before such things were endeavoured by other nations, admits of little doubt (l). The Portuguese writers acknowledge, that the island of Madeira was discovered by one Macham, an Eng-

(g) *Recueil des Voyages, qui ont servi à l'Etablissement et aux Progrez de la Compagnie des Indes Orientales, premier Tome.*—(h) *God's Power and Providence fully shewed, in the miraculous Deliverance of eight Englishmen left by Misfortune in Greenland, A. D. 1630, for nine Months and twelve Days, faithfully recorded by Edward Pelham, one of the said eight Men.* Churchill's Collection, vol. iv.—(i) *Gulielm. Malmesburiens. de Gestis Pontific. Anglor. lib. ii. p. 247, 248.*—(l) Sir John Spelman's *Life of King Alfred*, a MS. in the Bodleian Library, b. ii. § 81.—(l) *Powel's History of Wales*, p. 227, 228, 229. This Voyage was A. D. 1170.

lishman, who carried thither a lady he had stolen; and, after her death, endeavouring to escape, he was taken by the inhabitants of Africa, who, on account of his being over-grown with hair, by living long in a desolate place, sent him as a present to Don Pedro, then king of Castile; and to his reports they ascribe all their own, and the Spaniards subsequent discoveries (*m*). In all the military expeditions to the Holy Land, none had a larger share, or acquitted themselves with greater reputation, than the monarchs, princes, and nobility of this island (*n*). The English had a principal hand in recovering the city of Lisbon from the Moors, and thereby established the Portuguese monarchy, for which they are very honourably mentioned in the histories of that country, and had very great privileges bestowed upon them (*o*). Several British princes and noblemen distinguished themselves amongst the Teutonic knights, in the conquest of Prussia (*p*). John of Gaunt laid claim to the crown of Castile; made an expedition to recover it; obtained an ample compensation for resigning his title; saw the crown, which he relinquished, placed on the brow of one daughter, (Catherine, consort to Don Henry III.) as that of Portugal had been before on the other (*q*). To the assistance of the English the Portuguese owed the taking of Ceuta, which is the single evidence of their having once possessed the dominions of Portugal, that is remaining in the hands of the Spaniards (*r*). The sacking of Cadiz by the Lord High Admiral Howard, and the Earl of Essex, put an end to the Spanish dreams of universal monarchy (*s*). We were once very near fixing Don Antonio on the throne of Portugal (*t*). It was the English succours gained the decisive battle of Evora (*u*), and thereby established the reigning house of Bragança, whose title to the crown of Portugal was acknowledged by Spain, in a treaty negotiated under the mediation of Great Britain (*w*). In a word, there has hardly been any great event,

(*m*) Asia, de Joan. de Barros, dos feitos que os Portuguezes fizeram, no de cobrimento, e conquista dos mares e terras, do oriente, Decada prima, lib. i. cap. 3. Don Antonio Galvano's Discoveries of the World, translated out of Portuguese by Richard Hakluyt, London, 1601. 4^o. p. 2. Purchas's Pilgrims, extracted from Galvano's Discoveries, vol. ii. p. 1671, 1672.—(*n*) Chronicon Hierosolymitanum, lib. ii. ix, x. Gul. Malmesbur. Hist. lib. iii. Nic. Trivetii, Annales. Gul. Neubrigenf Hist. lib. v. Rogeri Hoveden, Annales.—(*o*) Nic. Trivet. A. D. 1147. De la Neuville Histoire Generale de Portugal, tom. i. p. 89. Manoel de Faria y Sousa, Epitome de las Historias Portuguezas, lib. iii. cap. 2.—(*p*) The reader may find these Histories, drawn from original Authors, in the first Volume of Hakluyt's valuable Collection of Voyages.—(*q*) Historia vitæ et regni Richardi II. Angliæ Regis, a Monacho de Evesham consignata, p. 119, 120. Don Juan de Ferreras, Historia de Espana, A. D. 1387. Manoel de Faria y Sousa, Epitome de las Historias Portuguezas, l. iv. c. 2.—(*r*) Thom. Walsingham. Hist. A. D. 1415. Marmol. lib. iv. cap. 55. Manoel de Faria y Sousa, ubi supra, c. 3.—(*s*) Camdeni Annal. Elizabeth, p. 723, 778. A brief and true Report of the Honourable Voyage unto Cadiz, A. D. 1596, at the End of Hakluyt's first Volume, though wanting in many Copies. Birch's Memoirs of the Reign of Queen Elizabeth, vol. ii. p. 45.—(*t*) Manoel de Faria y Sousa, Epitome de las Historias Portuguezas, l. v. c. 4.—(*u*) Miscellanea Aulica. p. 202, 203. Stevens's History of Portugal, p. 513, 514.—(*w*) Corps Universel Diplomatique du Droit des Gens, tom. vii. P. i. p. 70.

in any part of Europe, in which the British crown, by its ministers, or the inhabitants of Britain, by their valour, have not had a considerable part. Sir Thomas Chaloner attended the emperor, Charles the Fifth, in his African expedition (x). The Earl of Essex commanded the English Auxiliaries, in the service of Henry the Fourth of France (y). To say nothing of our many hostile invasions, in support of the claim of our monarchs to the crown of that kingdom; or of the assistances given to the French kings, in opposition to that claim by the Scots (z). The Earl of Leicester was governor of the Dutch Provinces (a); the Vere's, the Norris's, and the Sidney's, gained immortal reputation in those low country wars (b); and there were whole brigades of our countrymen in the service of that great protestant hero, Gustavus Adolphus (c). If Columbus discovered a new world for Spain, it was because the shipwreck of his brother hindered his knowledge of the favourable reception that his propositions met with from Henry the Seventh (d). If Francis Magellan must be allowed the honour of first attempting the circumnavigation of the globe, yet Sir Francis Drake was the first captain who had the good fortune to atchieve it (e). Out of fifteen circumnavigations, nine have been performed by the English (f). The same heroic and indefatigable spirit, is visible in the several trials that have been made to discover the North-East and North-West passages to the Indies (g). If we have been less famous for inventions than some other nations, we are on all hands allowed to have perfected those that we have prosecuted with any degree of attention; witness the several fire-engines for raising water out of mines, and the great improvements in clocks and watches by Doctor Hooke, Mr. Tompion, Mr. Quare, and the late accurate and ingenious Mr. George Graham. We may therefore, from such numerous instances, conclude, that there is nothing insuperable to the genius, industry, and application of the natives of these islands, properly directed and suitably en-

(x) Thom. Chaloner. de Republica Anglorum instauranda. Lloyd's State Worthies, p. 534.—(y) Camdeni Annal. Eliz. p. 623. Davila, Historia delle guerre civili, liv. xii. P. Daniel, Histoire de France, tom. ix. p. 219.—(z) Walteri Hemmingford, Historia de Rebus gestis Edvardi I, Edvardi II. & Edvardi III. Thome de Elmham, Vita & Gesta Henrici Quinti, Anglorum Regis. Cullielmi Neubrigenfis, Historia sive Chronica. Abercromby's Achievements of the Scots, vol. i. P. Daniel. Mezeray.—(a) Rymeri Fœdera, tom. xv. p. 799. Grimstone's History of the Wars of the Low Countries, b. xiii. p. 910.—(b) Camdeni Annal. Eliz. p. 461, 462. Vere's Commentaries.—(c) Bishop Burnet's History of the two Dukes of Hamilton, book i. p. 7. where is the original Instrument between his Swedish Majesty, and James, then Marquis, afterwards Duke, of Hamilton.—(d) Historie di Fernando Colombo, nelle quali s'ha porticolare e vera relatione della vita e de' fatti dell' Ammiraglio di Christofo Colombo suo padre, e dello scuoprimento ch'egli fece delle Indie Occidentali dette mondo nuovo, tradotte dal Spagnuolo in Ital. da Alfonso Ulloa Venet, 1571, 8^o. cap. xi. Lord Bacon's Works, vol. ii. p. 336. Hakluyt's Voyages, vol. ii. p. 2 and 3.—(e) Hakluyt's Voyages, vol. iii. p. 742. Purchas's Pilgrims, vol. i. book ii. chap. 3. p. 46.—(f) Harris's Voyages, Edit. 1744, vol. i. chap. i.—(g) Recueil de Voiages au Nord, Amsterdam, 1715, 12^o. Ellis's Voyage to Hudson's-Bay, for discovering a North-West Passage, in the Years 1746, and 1747.

couraged, that lies within the reach of human abilities. How far indeed these may be affected by luxury and indolence, is hard to say; but we may, with truth, affirm, that these are unnatural vices, to which our climate does not at all lead, and which, as they can be no otherwise introduced, so they may be at any time removed and extirpated by example. This ought in a very particular manner to weigh with persons of distinction, in point of quality and fortune, whose duty it certainly is to reflect by their behaviour, which will ever influence the many, that honour upon their country, which by its constitution they derive from it, and this from motives of interest and policy, as well as of piety and prudence, since their precedence, and even their property, depends upon this temper of the populace, as a circulation of corruption must confound all characters, and, by reducing men to be little better than beasts, must necessarily and effectually level them with each other.

It, after all that has been said, it should still be objected, that there are more serene and healthy climates than ours; and if farther it should be urged that there are some diseases peculiar to, and many that are more common here than in some countries on the continent, a very succinct, and yet a very satisfactory answer may be given. In those happier climates, as they are called, it will be found that there are much greater numbers of indolent, ignorant, and indigent people, than with us; which plainly shews, that by suiting our manners to our climate, all those so much magnified inconveniencies are avoid, and we possess, in greater perfection, those pleasures that distinguish a free, active, and sensible people, from bigots or drones. In respect to diseases, what country is free from them? Or what country freer than this? If any such can be named, I dare say it will not be found under what is usually called a better, that is, a milder climate. In reference to diseases, that are supposed to be peculiar to, or frequent in, this country, I am persuaded that, upon a strict enquiry, the objection will not hold. The rickets is one of these; and yet, it may be truly affirmed, that wherever there is bad nursing, a disease like this will be common, not perhaps precisely with the same symptoms, for, in respect to them, the climate may have a share. But if, by taking away the cause, this evil may be prevented here, as well as in other places, there is no colour for the imputation (*b*). The scurvy we have only in common with other northern nations; the symptoms are more violent, and the disease less curable in many countries that may be mentioned, than in this; so that no reflection on the climate can be drawn from hence (*i*). As to con-

(*b*) Fran. Glissoni de Rachitide, London, 1650. Caroli Claromontii, de Aere, Locis, et Aquis Terræ Angliæ; deque Morbis Anglorum vernaculis, London, 1672, 12°. p. 42. Sir John Floyer's History of Cold Bathing, p. 10, 336 — (*i*) C. Claromontii, ubi supra. Doctor Sydenham's Works, p. 275. Martini Lister, Tractatus de quibusdam Morbis chronicis, Exercitatio v. Doctor Mead's Treatise of the Scurvy. A Treatise of the Scurvy, in three parts, by Doctor James Lind, Edinburgh, 1753. A Work equally curious, satisfactory, and useful.

sumptions,

sumptions, they arise from many different causes; in some, no doubt, the climate may be one, and to others it may strongly contribute; but, in regard to the first, it will, on a close enquiry, be generally found, that one or both of the parents were unhealthy, and yet, from the excellence of this climate derived strength enough to beget consumptive children; whereas, in any other, they would have had none (*k*). But, for one consumption of this kind, there are many more produced by indiscretion or excesses, and then it comes to be no more than the long struggle of a good natural constitution against a disease, which, in another country perhaps, had dispatched the patient at once. Add to all this, that in no country the common rank of men have a greater bloom of health in their countenances, or are more exempt from contagious distempers, or where, with the assistance of prudence, temperance, and exercise, people stand less in need of physicians; though where they are needful, their writings clearly demonstrate, that none more diligent or more skilful are to be found (*l*). In respect to that boasted sameness and serenity, with the want of which we are so much reproached, it was so handsomely and fully answered by CHARLES the Second, that I cannot do better than repeat his majesty's words. "After all complaints," said he, "against the inclemency and uncertainty of our weather, it may be, with truth, affirmed, that there is no country in Europe where a man can be out of doors with pleasure so many hours in a day, or so many days in a year, as in this." When we consider that the monarch who spoke it had been in Holland, Flanders, Germany, France, and Spain, and had also visited most parts of his own dominions, his remark, with every judicious and impartial reader, will have the greater weight.

As, upon a clear and comprehensive view of the advantages derived to us from our climate, we cannot but acknowledge the singular bounty of Providence in that respect; so, when we turn our eyes from contemplating the benefits thus derived from the air that surrounds us, we naturally look upon the earth that sustains us, and there again we meet with innumerable and inexhaustible sources of ease and happiness. We may truly pronounce our soil excellent, if we take only a hasty and cursory view of its contents, such as vegetable mould, black, grey, brown, and red; clays of various kinds, brick-clay, tile-clay, potters clay, tobacco-pipe-clay, clay for making crucibles, and glass-house pots: marl of many different sorts, and every-where dispersed; loam of several kinds; sands of different sorts: sandstone, freestone, grindstone, whetstone, limestone; blue slate; flag-marble of many kinds; alabaster, exceedingly rich and beautiful; por-

(*k*) C. Claromontii, ubi supra. Sir J. Floyer, of Cold Bathing, p. 157. Bennet.—(*l*) Gothofred. Moebii, Fundament. Med. Philolog. Jenæ, 1661, 4^o. p. 275. Plempii, Fundament. Med. p. 128. Curingiana, p. 10. Heisteri, Apologia pro Medicis §. xix, xx. Sam. Parkeri Historia sui Temporis, p. 35.

phyry, granite, pebbles, flints, agates; talcs of several kinds; chrystals, diversity of spars, pitch stone, cannel-coal, pit coal, jet, amber; salts of almost every species; alom, vitriol, saltpe-tre, sulphur, arsenic, pyrites, marcasites, antimony, lapis cala-minaris, blacklead, copper ore of very different kinds; tin ores in great variety, lead ores, iron ores, loadstone, &c. (m). One cannot conclude this part of the subject better, than with the observation of the learned and laborious Doctor Woodward (n). "As to gold and silver, England affords both, and in greater quantities too than is commonly imagined, which several late trials have taught me. Then we have cornelians, agates, Mochoes, onyx's, and jaspers; as also topazes, emeralds, and saphires, though they are not so hard as the oriental. The diamond indeed we want, and some few others of the gem kind. But, excepting these, and cinnabar, which is the ore of mercury, I know no metal, mineral, or fossil what-ever, that England does not yield; so very fertile and happy is it in its productions under ground." Its natural produc-tions also are not at all inferior to those of other nations (o); our fields are cloathed with the most agreeable verdure, our hills abound with salutiferous herbs; our meadows are painted with elegant and fragrant flowers; our mountains shaded by groves of different kinds of trees; so that, if the expression may be allow-ed, the patrimony we derive from Providence is plentiful in a very high degree, and may be extended, without fear of offend-ing truth, or the least suspicion of flattery, to all the three king-doms (p).

THERE is another circumstance highly advantageous, slightly touched by most authors, as if a matter rather of beauty and conveniency, than of any great consequence, but which in reali-ty is of very high importance. This is the diversity of situations throughout both islands, the country stretching in many places into wide levels, such as Newmarket, Lincoln-Heath, Salif-bury-plain, raising itself elsewhere up into hills, which some-times gently sink down again, and at others run on irregularly, rising and falling in a ridge of a very considerable extent, in some places having one direction, and taking in others quite a con-trary course (q). It is owing to this disposition of mountains,

(m) Sir John Pettus's *Fodinæ Regales*. Doctor Leigh's *Natural History of Lan-cashire*. Waller's *Essay on the value of Mines*. Additions to the English Tran-slation of Camden's *Britannia*. Fuller's *Worthies*. Shier's two *Discourses on the Mine Adventure*. Account of English Minerals, by Doctor Ray.—(n) Woodward's *Natural History of Fossils*, London, 1729, 8°. p. 6. See also the Appendix to Thoresby's *History of Leeds*. Doctor Stukeley's *Itinerarium Curiosum*, p. 35. 51, 54, 55, 60, 65, 71.—(o) Thomæ Chaloneri, *de Repub. Anglor. Instauranda*, lib. i. W. Harrison's *Description of Britain*. Drayton's *Polyolbion*. Evelyn's *Sylva*.—(p) Camdeni *Britannia*, Lond. 1607, Fol. Roberti Sibbaldi, *Scotia Illustrata*, Edinburgi, 1684, Fol. *Natural History of Ireland*, by Doctor Gerard Boate, pub-lished by Samuel Hartlib, Esq; London, 1652, 8°.—(q) Speed's *British Empire*, London, Fol. Doctor J. Childrey's *Britannia Baconica*, London, 1661, 8°. Doctor Stukeley's *Itinerarium Curiosum*, p. 169, 171, 185, 186, 187.

that springs, rivulets, and rivers, are so frequently to be found, and are withal so happily dispersed. In Scotland, where the hills are high, and the country beneath them sloping, the rivers run very sharp; but in the north, where the country, though high by situation, is nevertheless on the surface plain, the waters settle into lochs, or lakes, of which but few, though some, there are in England, and still more in Ireland (*r*). Hence arises not only an agreeable mixture of very distinct kinds of soil and country in different parts of the island, but even within the same county; so that if we take Staffordshire (*s*) for example, it will afford us a competent sample of the whole, which at the same time that it is exceedingly agreeable, is also of wonderful use, and is the principal source of that perpetual plenty which, in comparison of other countries, reigns here; so that real scarcity is seldom known, and no famine, or remarkable distress for necessary food, has been felt for some centuries.

BUT this will be better understood, if we cast our eyes upon the improved produce of these countries (*t*), if we reflect on the vast variety and amazing abundance of all edible roots, such as onions, turnips, carrots, parsnips, radishes, potatoes, &c. our fallads and greens, in which no country exceeds this; our liquorice, saffron, and other physical roots and herbs; our pulse, and grain of every sort, such as tares, peas, beans, oats, rye, barley and wheat of different kinds; our fruit-bearing shrubs and trees of all sorts, from our blackberries, bilberries, cranberries, strawberries, raspberries, gooseberries, currants, up to our apples, pears, plumbs, cherries, peaches, apricots, nectarines, and, of late years, even the fruits of the warmest southern climates. Timber of all sorts, fit for all uses, and applicable to all the purposes of pleasure, ornament, and profit (*u*); our gardens as elegant as any in Europe; our groves and woods beautifully disposed, and serving to recreate the eye of the traveller in almost every part of these islands; and if, notwithstanding all this, there may be, as undoubtedly there is, a scarcity of substantial timber perhaps in all the three kingdoms, this is owing to a triple cause, the vast consumption of it in building beyond what is practised elsewhere, or what was practised here in former times; the ease with which we have hitherto supplied ourselves with it from foreign parts; and our unaccountable neglect of our forests, not from any defect in our soil, or the want

(*r*) *Historiola Eliensis*, apud Camdeni Britan. p. 368. Hæctor. Boeth. *Scotorum Regni Descriptio*. Ancient and modern State of the County of Down, Dublin, 1774, 8°. chap. viii.—(*s*) See the three first Chapters of Doctor Plot's *Natural History* of this County.—(*t*) Worlidge's *System of Husbandry*, London, 1687, Fol. Evelyn's *Sylva*, *Pomona*, and *Acetaria*. Bradley's, Lawrence's, and Switzer's *Treatises*.—(*u*) Bliith's *Husbandry*, London, 1649, 4°. Austen, of *Fruit Trees*, London, 1652, 4°. Smith's *England's Improvement revived*. London, 1673, 4°. Cook, of *Forest and of Fruit Trees*, London, 1679, 4°. J. Worlidge's *Systema Horti-cultura*, or the *Art of Gardening*, London, 1719, 8°. Mafcall's new *Art of Planting and Crafting*, London, 1656, 4°.

either of room or capacity to have it in the greatest abundance through England, Scotland, and Ireland, in each of which, with proper care, timber enough might be produced of all sorts to serve plentifully all three; though perhaps the growth of all three at present, would very scantily answer the manifold wants, and continually increasing demands of England alone, and that too (which is at once a melancholy and important reflection) but for a short time (*w*).

It is in consequence of the mildness of our climate, and the admirable nature of our soil, that all useful animals thrive to such a degree of perfection in Britain. As for instance our sheep, from the flesh of which we derive such plenty of wholesome food, and so high a profit from their fleeces (*x*). These we have in almost every corner of both islands, in very many in the greatest abundance; and if every-where more equal in point of flesh than of fleece, this perhaps may be less owing to nature than the want of care, as we may else-where have occasion to explain. To these we may add goats, which in Wales, North Britain, and Ireland, as well as in some parts of England, are common enough, though perhaps their management, and the advantages that might be derived from them, have not been sufficiently considered (*y*). In few countries are there greater numbers of black cattle, or more improved than in these; so that they are one great source of our riches, furnishing every thing here which they furnish in any other country, in as great plenty, and in no less perfection. Horses we have of all sorts, and for all kinds of service, for the saddle, the race, and the carriage, all equally good, though of very different natures; some small and hardy, others large and strong; so that asses are but little, and mules still less used; though it is certain we might have both, if this plenty of our horses did not hinder our feeling any need of them (*z*). Our dogs are no less famous, admirable in their natures, and excellently trained; some distinguished through the quickness of their scent; others, from the swiftness of their feet;

(*w*) Evelyn's *Sylva*, book iii. chap. 7. Yarranton's *England's Improvement*, London, 1677, 4°. p. 58, 59, 60. Sibbaldi, *Scotia illustrata*, lib. i. p. i. cap. 13. lib. i. p. ii. Boate's *natural History of Ireland*, chap. xv. Proposal for improving and adorning the Island of Great Britain, by parochial Plantations of Timber, and other Trees, upon the Forests, Chaces, Commons, and waste Grounds, throughout the Kingdom, by Edward Wade, Esq; 1755, 4°.—(*x*) A brief Examination of certain ordinary Complaints of divers of our Countrymen, &c. by W. S. 1581. England's Interest considered, in the Increase of the Trade of this Kingdom, 1663, by S. Fortrey. Sir Robert Atkins's *History of Gloucestershire*, p. 77. Sir William Petty's *Political Anatomy of Ireland*, p. 67, 68. *Plan of English Commerce*, p. 156--164.—(*y*) Varro de *Re Rustica*, lib. ii. cap. 3, 11. Columella, lib. vii. cap. 6, 7. Polydor. Virgil. *Anglicæ Histor.* lib. i. Giles Markham's *Way to Wealth*, part i. p. 96. Doctor Beal's *Observations upon Husbandry*. Sibbaldi, *Scotia illustrata*, p. ii. lib. iii. §. 2 cap. 2. Worlidge's *System of Husbandry*, p. 172.—(*z*) Sir William Hope's *Horsemanship improved*, chap. vi. G. Markham's *cheap and good Husbandry*, book i. Worlidge's *System of Husbandry*, p. 170. Mortimer's *Husbandry*, book vi. chap. 2. Maitland's *History of London*, p. 339. D' Audiffret, *Histoire et Geographie ancienne et moderne*, vol. i. p. 141.

a third kind, from their sagacity; a fourth from their spirit and courage; and several sorts, from their gentleness and beauty (*a*). Our game cocks are thought peculiar to this island. To these we may add the great plenty of bees, and many other animals, if it was necessary; and it becomes us to own, that though we are not altogether free from vermin, or, excepting Ireland, from venomous animals, yet we are not infested with beasts of prey; and if ever we were plagued with wolves, they are long since extirpated.

It may indeed be said, that the choicest productions of the earth, and the most beautiful and serviceable of our beasts, are to be attributed rather to art than nature, as being originally imported, and with great skill and industry cherished and maintained; which must be admitted, and is in itself one of the greatest advantages we enjoy; for our climate and our soil receive, embrace, and with due observation and attention meliorate, whatever the inquisitive temper, the ingenious disposition, the laudable industry, the profound attention, and the indefatigable labour of its inhabitants, discover useful or desirable in other countries, in order to introduce and establish here (*b*). It is this reciprocal correspondence between the capacity of the natives, the clemency of the air, and the fertility of the soil, that completes the superior excellence of this country, and renders these islands a world within themselves, where almost all things delightful in their appearance, grateful to the senses, or profitable in their uses, may be collected, preserved, and very often improved. It is upon this maxim, taught us by nature, enforced by reason, and confirmed by daily experience, that the superstructure must rest which we are endeavouring to raise; and whoever attentively considers what we already possess, and the means by which the various sources of our riches were acquired, will easily discern, that there are very few things of which we are still in want, which by the same methods we may not with equal certainty and facility obtain (*c*). But that these singular prerogatives, derived from the wisdom of Providence, may be the better comprehended, and reduced to a greater degree of evidence, it is requisite we should shew that they are derived from, and depend chiefly upon, the peculiar situation of these countries.

GEOGRAPHERS, ancient and modern, in order to describe the different degrees of heat and cold, and to give us a general notion of the succession of seasons in the several parts of the world,

(*a*) Strabon. Geograph. lib. iv. p. 199. J. Caius. de Canibus Britannicis, Lond. 1570, 8°. Camdeni Britannia, p. 190, 191. Hector Boeth. Scotor. Regn. Descript. p. 7. Sibbaldi Scotia illustrata, p. ii. lib. iii. §. ii. cap. 5.—(*b*) W. Harrison's Description of England, cap. xviii. Speed's British Empire. Stow's Chronicle, p. 1-6. Bacon's Works. Evelyn's Sylva. Boyle's Works. Houghton's Collections on Husbandry and Trade.—(*c*) See this more largely treated in the succeeding book.

have divided it into climates (*d*). In this sense these islands lie in the eighth, ninth, tenth, eleventh, and twelfth, because the longest day in the most southern part of England is about sixteen hours and a quarter; and the longest day in the most northern part of Scotland eighteen hours (*e*). We are taught however, by experience, the surest, and indeed the only guide, that, except the length of the day, and that degree of heat which is derived directly from the sun-beams, there is little or nothing that can be concluded with certainty from the latitude; or, in other words, experience shews us, that places situated in the same latitude may, in all other respects, save those that are above-mentioned, differ exceedingly in point of climate (*f*).

THE city of Moscow is seated in the latitude of fifty-five degrees, thirty-six minutes, that is, about half a degree more to the south than Edinburgh, and yet one can scarce imagine any two climates more discordant (*g*). In the winter, the cold in the first-mentioned city is so extremely sharp, that many people perish by it; freezing of the nose, ears, and other extremities, is common; water thrown out of a basin, falls in ice upon the ground; the spittle, and even the breath, freezes. The earth is frozen above two feet deep; whereas, in this island, the sharpest frosts are never found to penetrate above half as far (*h*). Yet in April the whole face of nature is changed at Moscow in a very few days; the fields and woods are covered with verdure, and the country produces a great variety of fine fruits; insomuch that those who have visited this place only in the summer, tell us there is no capital in Europe more beautifully or pleasantly situated than this. It lies indeed in a very capacious plain, watered by two fine rivers; so that the bridge over the Moskwa is said to be a third part longer than London bridge (*i*). Our countryman, Captain Perry, has explained the causes of this excessive cold: he tells us that the north-east winds blow much colder than any other in the beginning of winter, coming over vast tracks of land covered with snow and ice; but when the snows are fallen in the south, which is a little later, the wind from that quarter becomes equally cold (*k*). If we add to this, that Moscow stands almost five hundred miles from the nearest sea, all that is related of

(*d*) Camdeni Britannia, p. 2, where he places Britain under the eighth climate, and between the eighteenth and twenty-sixth parallels.—(*e*) Varenii Geograph. univers. lib. ii. §. 6. cap. 25. Martiniere, Dictionnaire Geographique et Critique, tom. iii. p. 678. Heylin's Cosmography, p. 238.—(*f*) Varenii Geograph. univers. lib. ii. cap. 6, 26. P. J. Acofta, Historia natural y moral de las Indias, lib. ii. c. 9, 12. Purchas's Pilgrims, vol. iii. p. 571. Recueil de Voyages au Nord, tom. viii. p. 391, 392. Perry's State of Russia, p. 70--77.—(*g*) Cluverii Introd. Geograph. lib. iv. cap. 28. Luyt's Introd. ad Geograph. sect. ii. cap. 35. Du Bois Geographie moderne, p. 479.—(*h*) Hackluyt's Collection of Voyages, vol. i. p. 476. Boyle's Works, vol. ii. p. 295, 318, 319. Heylin's Cosmography, p. 456.—(*i*) Doctor Giles Fletcher's Observations during his Stay in Russia. Present State of Russia, p. 124, 150. Sieur de la Croix Geographie universelle, tom. ii. p. 310.—(*k*) Perry's State of Russia, p. 73. Histoire genealogique des Tartares, p. 479, 480. Sieur de la Croix Geographie universelle, tom. ii. p. 310.

the severity of its climate, becomes equally credible and consistent (*l*).

STOCKHOLM, and the country of Sweden in its vicinity, though lying more than four degrees to the North of Moscow, yet having the Bothnic Gulph on the north, the Baltic on the south, and the German Ocean, though with the whole breadth of Sweden and Norway between it, on the West, is far less cold; and yet a French ambassador said they had only nine months winter there, and that all the rest was summer (*m*). In this short summer, however, they have a variety of flowers, strawberries, raspberries, and currants, in great plenty and perfection; apples, pears, and plums, that are tolerable; apricots that, when the summer is favourable, are excellent; and, in very dry years, melons (*n*). But at Tobolsky, which is the chief place in Siberia, and full two degrees south of Stockholm, there is nothing like this, because it lies so far within land, and the winds blowing over great tracts of snow and ice, maintain, in comparison of other countries, almost a perpetual winter (*o*).

COPENHAGEN, the capital of Denmark, lies in the island of Zealand, in the latitude of fifty-five degrees forty minutes, which is very near that of Moscow, and something more than a degree north of Dublin (*p*). The island is about one hundred and eighty miles in compass, but the climate and soil very different. There are, properly speaking, but two seasons, winter and summer; the former long and rigorous, insomuch that the duke of Richmond, the last branch of the royal family, died there ambassador in the reign of Charles the Second, by the severity of the season (*q*): the latter, which comprehends the months of June, July, and August, is very close and sultry, the nights more especially (*r*). As to the produce of the island, the only corn they have is rye, and of that, seldom more than is sufficient for their own use: roots and greens in abundance; and in their gardens, about which persons of distinction are very nice, some very good fruits. The inhabitants are less exposed to rheums and coughs than other northern nations; but they are more subject to epilepsies and apoplexies than in most other places, which is attri-

(*l*) Luyt's *Introd. ad Geograph.* p. 374. Sir Jerom Bowes's *Remarks on the Country of Russia.* Hanway's *Travels*, vol. ii. p. 13.—(*m*) Cluverii *Introd. Geograph.* lib. iii. cap. 20. Luyt's *Introd. ad Geograph.* sect. ii. cap. 34. Du Bois, *Geographie moderne*, p. 445.—(*n*) Gothofredus in *Descriptione Sueciæ*, p. 131. Bishop Robinson's *Account of Sweden*, p. 17, 18. Martiniere, *Dictionnaire Geographique et Critique*, vol. ix. p. 114.—(*o*) *Recueil des Voyages qui ont servi à l'établissement de la Compagnie des Indes Orientales*, vol. i. p. 236, 237. Strahlenbergh's *Description of Russia and Siberia*, p. 122. *Les Moeurs et Usages des Ostiackes*, par J. B. Muller, p. 19.—(*p*) Luyt's *Introd. ad Geographiam*, sect. ii. cap. 32. Du Bois *Geographie moderne*, p. 1. cap. 14. sect. 2. Martiniere, *Dictionnaire Geographique et Critique*, vol. iii. p. 778.—(*q*) Lord Moleworth's *Account of Denmark*, p. 6, 7. Philip's *Continuation of Heath's Chronicle*, p. 589. Dugdale's *Baronage*, vol. ii. p. 427.—(*r*) Aubery de Maurier *Memoires de Danemark*, p. 139. Lord Moleworth's *Account of Denmark*, p. 8, 9. *Geographie de Robbe*, p. 334.

have divided it into climates (*d*). In this sense these islands lie in the eighth, ninth, tenth, eleventh, and twelfth, because the longest day in the most southern part of England is about sixteen hours and a quarter; and the longest day in the most northern part of Scotland eighteen hours (*e*). We are taught however, by experience, the surest, and indeed the only guide, that, except the length of the day, and that degree of heat which is derived directly from the sun-beams, there is little or nothing that can be concluded with certainty from the latitude; or, in other words, experience shews us, that places situated in the same latitude may, in all other respects, save those that are above-mentioned, differ exceedingly in point of climate (*f*).

THE city of Moscow is seated in the latitude of fifty-five degrees, thirty-six minutes, that is, about half a degree more to the south than Edinburgh, and yet one can scarce imagine any two climates more discordant (*g*). In the winter, the cold in the first-mentioned city is so extremely sharp, that many people perish by it; freezing of the nose, ears, and other extremities, is common; water thrown out of a basin, falls in ice upon the ground; the spittle, and even the breath, freezes. The earth is frozen above two feet deep; whereas, in this island, the sharpest frosts are never found to penetrate above half as far (*h*). Yet in April the whole face of nature is changed at Moscow in a very few days; the fields and woods are covered with verdure, and the country produces a great variety of fine fruits; insomuch that those who have visited this place only in the summer, tell us there is no capital in Europe more beautifully or pleasantly situated than this. It lies indeed in a very capacious plain, watered by two fine rivers; so that the bridge over the Mosqua is said to be a third part longer than London bridge (*i*). Our countryman, Captain Perry, has explained the causes of this excessive cold: he tells us that the north-east winds blow much colder than any other in the beginning of winter, coming over vast tracks of land covered with snow and ice; but when the snows are fallen in the south, which is a little later, the wind from that quarter becomes equally cold (*k*). If we add to this, that Moscow stands almost five hundred miles from the nearest sea, all that is related of

(*d*) Camdeni Britannia, p. 2, where he places Britain under the eighth climate, and between the eighteenth and twenty-sixth parallels.—(*e*) Varenii Geograph. univers. lib. ii. §. 6. cap. 25. Martiniere, Dictionnaire Geographique et Critique, tom. iii. p. 678. Heylin's Cosmography, p. 238.—(*f*) Varenii Geograph. univers. lib. ii. cap. 6, 26. P. J. Acofta, Historia natural y moral de las Indias, lib. ii. c. 9, 12. Purchas's Pilgrims, vol. iii. p. 571. Recueil de Voyages au Nord, tom. viii. p. 391, 392. Perry's State of Russia, p. 70--77.—(*g*) Cluverii Introd. Geograph. lib. iv. cap. 28. Luyt's Introd. ad Geograph. sect. ii. cap. 35. Du Bois Geographie moderne, p. 479.—(*h*) Hackluyt's Collection of Voyages, vol. i. p. 476. Boyle's Works, vol. ii. p. 295, 318, 319. Heylin's Cosmography, p. 456.—(*i*) Doctor Giles Fletcher's Observations during his Stay in Russia. Present State of Russia, p. 124, 150. Sieur de la Croix Geographie universelle, tom. ii. p. 310.—(*k*) Perry's State of Russia, p. 73. Histoire genealogique des Tartares, p. 479, 480. Sieur de la Croix Geographie universelle, tom. ii. p. 310.

the severity of its climate, becomes equally credible and consistent (*l*).

STOCKHOLM, and the country of Sweden in its vicinity, though lying more than four degrees to the North of Moscow, yet having the Bothnic Gulph on the north, the Baltic on the south, and the German Ocean, though with the whole breadth of Sweden and Norway between it, on the West, is far less cold; and yet a French ambassador said they had only nine months winter there, and that all the rest was summer (*m*). In this short summer, however, they have a variety of flowers, strawberries, raspberries, and currants, in great plenty and perfection; apples, pears, and plumbs, that are tolerable; apricots that, when the summer is favourable, are excellent; and, in very dry years, melons (*n*). But at Tobolsky, which is the chief place in Siberia, and full two degrees south of Stockholm, there is nothing like this, because it lies so far within land, and the winds blowing over great tracts of snow and ice, maintain, in comparison of other countries, almost a perpetual winter (*o*).

COPENHAGEN, the capital of Denmark, lies in the island of Zealand, in the latitude of fifty-five degrees forty minutes, which is very near that of Moscow, and something more than a degree north of Dublin (*p*). The island is about one hundred and eighty miles in compass, but the climate and soil very different. There are, properly speaking, but two seasons, winter and summer; the former long and rigorous, insomuch that the duke of Richmond, the last branch of the royal family, died there ambassador in the reign of Charles the Second, by the severity of the season (*q*): the latter, which comprehends the months of June, July, and August, is very close and sultry, the nights more especially (*r*). As to the produce of the island, the only corn they have is rye, and of that, seldom more than is sufficient for their own use: roots and greens in abundance; and in their gardens, about which persons of distinction are very nice, some very good fruits. The inhabitants are less exposed to rheums and coughs than other northern nations; but they are more subject to epilepsies and apoplexies than in most other places, which is attri-

(*l*) Luyt's *Introd. ad Geograph.* p. 374. Sir Jerom Bowes's *Remarks on the Country of Russia.* Hanway's *Travels*, vol. ii. p. 13.—(*m*) Cluverii *Introd. Geograph.* lib. iii. cap. 20. Luyt's *Introd. ad Geograph.* sect. ii. cap. 34. Du Bois, *Geographie moderne*, p. 445.—(*n*) Gothofredus in *Descriptione Sueciæ*, p. 131. Bishop Robinson's *Account of Sweden*, p. 17, 18. Martiniere, *Dictionnaire Geographique et Critique*, vol. ix. p. 114.—(*o*) *Recueil des Voyages qui ont servi à l'établissement de la Compagnie des Indes Orientales*, vol. i. p. 236, 237. Strahlenbergh's *Description of Russia and Siberia*, p. 122. *Les Moeurs et Usages des Ostiacks*, par J. B. Muller, p. 19.—(*p*) Luyt's *Introd. ad Geographiam*, sect. ii. cap. 32. Du Bois *Geographie moderne*, p. 1. cap. 14. sect. 2. Martiniere, *Dictionnaire Geographique et Critique*, vol. iii. p. 778.—(*q*) Lord Moleworth's *Account of Denmark*, p. 6, 7. Philip's *Continuation of Heath's Chronicle*, p. 589. Dugdale's *Baronage*, vol. ii. p. 427.—(*r*) Aubery de Maurier *Memoires de Danemark*, p. 139. Lord Moleworth's *Account of Denmark*, p. 8, 9. *Geographie de Robbe*, p. 334.

buted to their poor living (*s*). Yet the island of Funen, which lies between Zealand and Jutland, is much more temperate, and very fruitful; as is also the promontory of Jutland itself, being furrounded by the sea on the East, North, and West; and the small island of Laland, which lies but a little South of Zealand, produces a vast quantity of wheat. All which shews, that it is the particular circumstances that attend the situation of places, and not their lying in this or that geographical climate, that operates upon the air and soil (*t*). It is a point of such notoriety, there is no need of our insisting upon it, that, in regard to mildness of air, or of richness of soil, the inhabitants of Great Britain and Ireland have no reason to envy those of Normandy, the Low Countries, Germany, or Denmark, or any of the countries that lie behind these, Prussia, Poland, Russia, and Siberia (*u*). Though, after all that has been said, it must be also allowed, that these countries have their advantages, and abound in many commodities of great value. But then we have this consolation, that, without being exposed either to their severe winters, the sultry heat of their summers, the inundations that happen from their rivers, the destructive flights of locusts, and other inconveniences to which they are exposed, we may, with a little care and industry, have those advantages, or most of them, in equal perfection in our own country (*w*).

BUT to come now to the material point, in respect to which all the rest were but preparatory. The British Islands owe the numerous and invaluable blessings which they enjoy to their situation. They have the German ocean on the east, the British Channel on the south, the great Atlantic Ocean on the west, and on the north. Our air therefore is continually mixed with warm and humid vapours, which temper the severity of cold, and allay the piercing heat of the sun beams. That the exhalations from the ocean are really warm, we may conclude from its constant motion, from its never freezing, and from its being always exposed to the action of the sun; and that these vapours are raised very copiously, the learned, judicious, and accurate Doctor Halley has fully demonstrated (*x*). The means by which they are brought and kept in our atmosphere, are the prevalence of the west winds, which blow here for so considerable a part of the year, and can be charged only with these genial and salubrious

(*s*) Description of the Northern Kingdoms in Pitt's Atlas, vol. i. p. 62. *Geographie moderne*, p. 436. Boyle's Works, vol. ii. p. 389.—(*t*) D'Audiffret *Histoire et Geographie ancienne et moderne*, tom. i. p. 320, 321, 322. Heylin's *Cosmography*, lib. i. p. 434.—(*u*) Tacitus in *Julio Agricola*, *Ammian Marcellin*, lib. xviii. Polydor. *Virgilii Anglicæ Histor.* lib. i. *L'Isola piu famosa del Mondo*, descritte da Tomaso Porcacchi da Castiglione, lib. i. p. 16. D'Audiffret *Histoire et Geographie ancienne et moderne*, tom. i. p. 140.—(*w*) *Cæsar*, de *Bello Gallico*, lib. v. *Dio Cassius*, lib. lxxii. *Strabonis Epitomer*, lib. iii. *J. Boemus Aubanus*, de *Moribus omnium Gentium*, lib. iii. Thomas Gainsford's *Glory of England*, London, 1618, 4^o.—(*x*) *Cicer.* de *Nat. Deor.* lib. ii. *Minutius Felix* in *Octavio*, cap. xix. See Doctor Halley's incomparable *Treatise in the first Volume of Miscellanea Curiosa*, published by Doctor Derham.

vapours; whereas the east winds that blow over the Continent, come to us piercing cold in the winter, or close and hot in the summer (y). From the sea vapours, brought by the western breezes, we have those gentle pleasant showers that so much promote vegetation; those copious dews, loaded with invigorating salts, that leave such supplies of fine fertilizing matter, as repair what our grass, herbs and flowers consume; and those innumerable springs, brooks, running streams, rivulets, and, when collected, navigable rivers, which every-where feed, cherish, and adorn this country (z). That these things are really so, and that these are not philosophical fancies, retailed to flatter the inhabitants of these islands, will most evidently and incontestibly appear by comparing their different parts with each other, and attending to facts relating to them so convincing, that they admit of no reply, and of such notoriety that they cannot be controverted. In Ireland, which lies farther to the west, these effects, supposing this reasoning just, ought to be discovered in a still stronger degree than in Great Britain, and so they really are. Doctor Gerard Boate, who wrote the natural history of that island, tells us, that it is much less subject to cold than other countries in the same latitude, and even than many that lie farther to the south; that they have not commonly above three or four frosts in a winter, and these rarely of three days standing; that a frost of ten days does not happen in so many years; but that many winters they have no frost at all. He complains of the wet weather, more especially in summer; he says, they seldom have a week without it; that now and then they have a dry summer, but never one which is too dry, which he attributes to the west and south-west winds; but asserts that, notwithstanding the extraordinary moisture, the country is every-where very healthy (a). Sir William Petty says, that the wind blows between the West and south-west points three parts in five of the whole year; that snow lies not long upon the ground; and that, in general, the country of Ireland [and no man knew it better] is fertile and pleasant (b). Mr. Smith, in his history of the city and county of Waterford, observes, that in the very severe winter of 1736 (c), when the inland country was entirely locked up, yet within six miles of the ocean [observe too, that though we use the author's own words, he means the channel between Great Britain and Ireland] the country was free and open, and the cattle grazed in the fields as usual; which he attributes to the warm vapours of the sea. All writers admit, that thunder and lightning are very

(y) Doctor Nichols's Conference with a Theist, p. ii. p. 191. Derham's Physico-Theology, book ii. chap. 5. Perry's State of Russia, p. 76.—(z) W. Hartison's Description of England. Drayton's Polyolbion. Richardson's State of Europe.—(a) Ireland's Natural History, by Doctor Gerard Boate, London, 1652, 8°. chap. xxi, xxii, xxiii. There is an improved edition of this book printed in Ireland.—(b) The Political Anatomy of Ireland, p. 50.—(c) The ancient and present State of the City and County of Waterford, by Charles Smith, Dublin, 1746, 8vo. chap. xiii.

rare in this country ; and that in proportion as their bogs are drained, and the soil cultivated, the weather becomes better, and their summer drier, corresponding to the old remark of Pliny (*d*). The county of Cornwall agrees, in all respects, very much with Ireland ; the winters there are milder than in most parts of England ; snow seldom lies upon the ground ; and myrtles grow in the open air, without any inconvenience (*e*). In Pembrokeshire the climate is also remarkably fine, and their seasons are earlier than in the inland counties. Indeed the whole west coast of Britain very much resembles, in point of climate, that of Ireland, except that it is not quite so moist, as the humidity of the vapours must be in some measure abated in their passage over that country, before they reach Britain.

If this reasoning be just, then it will also follow, that the Northern parts of Great Britain must be less cold than the southern, the height of their latitude considered, because they have the German Ocean between them and the Continent ; whereas the southern parts have only a narrower strait. As for instance, the space between Dover and Calais is but seven leagues, or one and twenty miles ; from the North Foreland to Flushing is but seventy-five miles ; and from Harwich to Helvoetsluys no more than ninety miles ; but from Newcastle to the nearest part of Jutland, is one hundred leagues, or three hundred miles ; from Edinburgh it is still more ; but farther North the distance lessens, so as not to be full two hundred miles removed from Norway (*f*). Let us see next how the case stands in point of fact. The winter of 1708 was one of the most intense, in point of cold, that had been felt in the memory of man : and we have a very large account of this in the Philosophical Transactions, published by the ingenious and accurate Mr. Derham, in which there is a letter from the very knowing and observing Doctor William Nicholson, then bishop of Carlisle, in which he says, that he had sufficient opportunity to observe the frost and cold being more intense in the southern parts, so that his horses scarce trod on snow till they reached the confines of Yorkshire, where it lay pretty thick upon the ground, and still deeper as they came farther south ; neither were the rivers or lakes in Cumberland or Westmoreland frozen, which made the swans repair thither in prodigious numbers (*g*). Sir Robert Sibbald wrote a like account from Edinburgh, affirming that he could hear of no extraordinary effects of the cold season there ; the winter indeed was long, beginning early in October, and continuing till May, and a great deal of snow lay upon their southern hills. This

(*d*) Hist. Nat. lib. xvii. cap. 4. — (*e*) Carew's Survey of Cornwall. Doctor Childrey's Britannia Baconica. Additions to Camden. Richardson's State of Europe, book iii. p. 7, 8. Heath's Account of Cornwall, joined to that of the Scilly Islands, p. 307. — (*f*) In order to conceive this clearly, see Senex's large Map, where what is asserted in the text appears to the eye. — (*g*) Philosophical Transactions, No. 324, where, as hinted in the text, there is a curious and accurate account of this hard winter by the ingenious and judicious Mr. W. Derham.

made the ensuing harvest late, but it was very plentiful; and the same is related by Mr. Molineux with regard to Ireland (*b*).

WE have now made the tour of these islands, and, by arguments drawn from reason, and confirmed by experience, have established the proposition we asserted; so that perhaps no farther evidence is, strictly speaking, necessary. But to leave the matter without any shadow of doubt, and that the reader may have a clearer idea of its importance, let us observe that the island of Newfoundland, which all belongs to this crown, lies for the most part in a lower latitude than Britain; and yet the rigorous cold in winter, and the excessive heats in summer, render it hardly habitable (*i*). The true reason of this was given long ago to the great Sir Francis Bacon, Viscount St. Albans, by a person who had carried over settlers, and had spent the winter there; he said, the principal cause of cold in Newfoundland, was the very same that produced the warmth of the British Islands, that is, the constant blowing of the west wind. For there, continued he, it blows cold, and here warm; and he added very pertinently that if the east wind blew as long here, Britain would be then as cold as Newfoundland is, and the climate of Newfoundland become as good as ours (*k*). As to the country of New Britain, or Labradore, to which this crown has also an indubitable title, and which receives its name from its lying nearly under the same latitude with this island, it is yet colder, and more inhospitable than Newfoundland; and we know not whether it is inhabited, or only visited in the summer by the Eskimaux Indians (*l*). Captain James, who wintered in Hudson's Bay, and who has left us stronger testimonies of the power of cold, from his own experience, than any other writer whatever, assures us that Charlton Island, the place in which he felt this terrible weather, lay in the same degree of latitude with Cambridge, and that the south wind was the most piercing, which with us is commonly attended with heat (*m*). We will add only one observation more, which is, that Cape Horn, where the weather in their winter season, as all navigators agree, is excessively cold, is in the latitude of fifty-five degrees, forty-five minutes south (*n*), whereas Edinburgh is in the latitude of fifty-five degrees, fifty-eight minutes north; so that we may truly affirm, that in no part of the world could these islands have been fixed in so advantageous a temperature, as that in which they lie.

(*b*) Sir Robert's Letter is dated November the 5th, 1709.—(*i*) Sir Humphry Gilbert's Account of Newfoundland in Hackluyt's original edition, p. 637. Purchas's Pilgrimage, p. 821. British Empire in America, vol. i. p. 15, 16, 17. Voyages au Nord, tom. iii. p. 1.—(*k*) Bacon's Works, vol. iii. p. 308. Shaw's Abridgment of Bacon, vol. iii. p. 455, 456. Boyle's Works, vol. ii. p. 352.—(*l*) Luyt's Introduction to Geograph. sect. v. cap. 2. Heylin's Cosmography, p. 950. Du Bois Geographie moderne, p. iv. cap. 5.—(*m*) Captain James's Voyage for the discovering a new passage to the South Sea, p. 59.—(*n*) Captain Cowley's Voyage round the World, p. 6. Wood's Account of Sir John Narborough's Voyage, chap. i. Frezier Relation du Voyage de la Mer du Sud, p. 506, 507.

As the situation of the British Isles is incontestibly happy in regard to the numerous benefits that it produces to the inhabitants; so this situation will appear to the full as admirable, when we consider the innumerable conveniencies that likewise arise from thence in respect to commerce. The ocean and of course the world is open to us on every side. All the northern kingdoms, the great empire of Russia, and the countries that border on the Baltic, seem to solicit a correspondence with the Eastern coast of our island; while for the trade of America in general, nothing can lie fairer, Ireland only excepted, than the west of Britain. The basis of this island, if we behold it as the ancients did, in the form of a triangle, is very commodiously seated for intercourse with the southern parts of Europe, and all the western shore of the wide continent of Africa. The commerce of the Mediterranean is in some degree removed, but will nevertheless continue as much in our power as the rest, while those ports remain to Britain, which she obtained at such immense expence of blood and treasure, and were confirmed to her by the guaranty of the most respectable potentates in Europe. In reference to the trade of the East Indies, we are certainly as conveniently seated as any other nation; and for the space of about a century and a half that we have opened our eyes to these advantages, experience has justified all that speculation could promise, and we have gradually become, in regard to the world in general, such a naval power as Tyre, Crete, and Rhodes were, in respect to all the countries thoroughly peopled and known in earlier times. But with all the commerce of which we are now in possession, perhaps we have a title in reversion to what may prove of at least equal value. For if ever a passage should be opened to the north, in supposing which practicable, from many years consideration, I am fully satisfied there is nothing chimerical, our voyages to Japan, and to the South Seas, would be as short, as safe, and incomparably more wholesome, than they are at present to the Cape of Good Hope. We may therefore upon the whole conclude, that, as far as the wisdom of man can distinguish, there is no situation so favourable for obtaining, conducting, or preserving universal commerce, as that of the British Isles: an assertion so bold, and which will sound so disagreeable in the ears of some of our neighbours, that I should have been very cautious in making it, if I was not thoroughly convinced, that, as I only echo what Providence has pronounced, the glorious truth must be even by them, however reluctantly, if not confessed, at least believed.

BUT all these blessings, great and numerous as they are, receive no small accession from that security which is also the result of our situation. All the parts of these islands are so fortunately disposed, or rather so wisely ordered by the hand of our Creator, that they can very easily sustain each other, and, by the mutual exertion of their respective forces, contribute to the defence of the

the whole. As an island, we have no need of a multitude of expensive, and sometimes dangerous fortresses, which, in times past, have been more destructive to domestic peace, than useful against foreign invaders. A few strong places upon the coast, large and commodious roads, by which succours may arrive with ease and expedition from all sides, and a multitude of populous places on and near the sea shore, are the securest means of repelling, and therefore the most likely to avert invasions. But besides, the nature of our own coasts, and the position of those of our neighbours, afford us many advantages, and free us from the apprehension of surprize. But, after all, our naval force is our principal, most natural, and strongest guard. A force that has arisen from, and must be always maintained by, our commerce, which, in proportion as it extends itself, must improve every neglected spot of our country, augment the number of its inhabitants, and produce other beneficial consequences that will continually add to the power that must protect us, and which when exerted with vigour and unanimity, may, with the blessing of God, defend us from the envy of our rivals, and the malice of our enemies; those enemies, which a repining sense of this natural and national prosperity will never fail to provoke.

CHAPTER V.

THE peculiar felicity of Great Britain, in a copious distribution of excellent water; distinguished in this respect, not only from countries on the Continent, but also from many islands: yet, with all this water, little exposed to inundations. Our rains equally productive of verdure and fertility, being purer, and more impregnated with salts, than in other countries. The different opinions of philosophers as to the origin of springs, alike favourable to this argument. The various properties of springs demonstrate a proportionable variety of soils. The frequency of springs in this island proved from authorities, and an attempt to account for it. Such as have been judged wonderful in other countries, are most of them found here. This point made apparent from many other instances. Salt springs in several counties in England. The celebrated Wiches in Cheshire, and immense quantities of salt drawn from them. A succinct account of the salt springs at Droitwich, in Worcestershire. A concise detail of the medicinal and mineral waters in South Britain. The baths which are in this part of the island. Meers and lakes, their advantages and inconveniencies. The most considerable springs, baths, and lakes, which are in North Britain. Fountains and lochs remarkable in Ireland. The defects and scantiness of this short survey. Observations on the utility of this plenty and happy distribution of waters. Conclusion.

AS we have ascribed the singular mildness and acknowledged pleasantness of our climate, to the warm vapours constantly exhaled from the ocean that surrounds us; so to the same cause we must refer that amazing abundance of fresh and wholesome water, from whence the fertility of our soil, the vivid lustre of our plains, the deeper tincture of our groves and forests, and so many other valuable blessings proceed. We have touched this subject generally in the last chapter; but our superiority to most other countries, in this respect, is too remarkable, though perhaps too little considered, their benefits too numerous, and their consequences too extensive, not to deserve a more particular discussion. In order to have a clear idea of the importance of the subject, we need only recollect what has been already said of the situation of the Tartars, who, in one of the most extensive, and none of the worst countries in Europe or Asia, were originally taught, and are still in a manner perpetually compelled, to pursue the wandering kind of life they lead, by the sparing distribution of water in that vast region which they inhabit (*a*). The map of Africa will afford us a convincing proof of the same thing, where the geography of a large country, and the history of its inhabitants, are very frequently comprised in a few lines; which carry in them this evident testimony of truth, that, had it been otherwise, and these people been blessed with any tolerable degree of correspondence in the course of ages, we must have heard it (*b*). In Poland again, which is a very noble kingdom, and derives its name from the flatness of its surface, *Ploska*, in the language of the natives, signifying a Champaigne, is so strictly such, that, except on their frontiers, they have but one remarkable eminence, which is called the Bald Mountain (*c*), and scarce any river that, by rising in, and passing solely through their territory, can be properly stiled their own; which, though no bar to the fertility of their soil, and a kind of inelegant plenty, is the essential cause of their want of science, arts, commerce, and of the beneficial consequences that necessarily attend them (*d*).

BUT it may be perhaps surmised that we possess this privilege only in common with all other islands; which however is not so, since, in this respect, there are many indifferently provided, and some, through the want of it, very much distressed. The island Lipara, or Lipari, on the coast of Sicily, enjoys a soft climate, is equally pleasant and fruitful, was anciently famous for

(*a*) Itinerar. F. Johan. de Plano Carpini, cap. iii. Anth. Jenkinson's Travels in Hackluyt's Collection, vol. i. p. 328. Histoire Genealogique de Tatars, p. 48, 49.—(*b*) Consult the general Histories of Africa, or rather geographical Descriptions, particularly Dapper's; and Sanfon's and De Lisle's Maps.—(*c*) Connor's History of Poland, vol. i. p. 216, 217. D'Audiffret Histoire et Geographie ancienne et moderne, tom. i. p. 404, 405. La Geographie moderne par Du Bois, p. 457.—(*d*) Philip. Cluver. Introduct. Geograph. lib. iv. cap. 23, 24. Richardson's State of Europe, book xiv. p. 44, 45. Luyt's Introduct. ad Geographiam, sect. ii. cap. 36.

for its baths, but, except these, depends upon rain, and supplies from the adjacent islands, for water (*e*). The greater and the lesser Delos has but one spring between them (*f*). The island of Ascension, though it might be of great utility from its situation, remains naked and uninhabited in the neighbourhood of St. Helena, which is crowded with people, from the very same defect (*g*). The island of Marguerite, Margareta, Margaritta, or, as some call it, Pearl island, in South America, heretofore famous for its rich fishery, suffered extremely from the same cause (*h*); and the noble, fruitful, and opulent island of Cyprus, though it has several streams which bear the name of rivers in the maps, yet are they, properly speaking, rather torrents, which in warm summers are commonly low, and sometimes absolutely dry (*i*). In the reign of the emperor Constantine the Great, they had no rain for thirty-six years; by which the country was burnt up, and, in a great measure depopulated (*k*). These instances are sufficient to shew how much, in this particular, we stand indebted to Providence.

IN the midst of this abundance of water, which is of so great consequence to the health, the commerce, and the delight, as well as indispensably necessary to the subsistence of mankind, we are little, and but rarely, exposed to any of those dreadful inconveniences from it, which are equally frequent and dangerous in some of the neighbouring countries upon the continent. In Germany the Rhine, the Oder, and the Maine, often overflow their banks; and not only drown the adjacent country, but lay large towns, and sometimes parts of cities under water, to the great detriment of the inhabitants, and the loss of many lives (*l*). In like manner the southern provinces of France suffer by the sudden floods of the Rhosne, and other rivers, as fell out within these few years, to the loss of millions (*m*). With us indeed, some accidents happen from the falling of great rains and violent land floods; but they are deluges in miniature, in comparison of those before-mentioned; and yet we may learn from what is recorded of Cyprus, and the sad effects of immense rains there, as well as droughts; or, if we peruse the best accounts of the island

(*e*) Cicer. Verrini, iii. Salius Italicus, lib. xiv. Luyt's *Introduct. ad Geograph.* §. ii. cap. 19.—(*f*) *Isolario di Thomaso Porchetti*, lib. ii. p. 77. *Voyage du Levant*, par Tournefort, tom. i. *Wheeler's Travels*, p. 62.—(*g*) *Purchas's Pilgrims*, vol. i. lib. iii. p. 124. *Ovington's Voyage to Surat*, p. 512. *Recueil des Voyages qui ont servit à l'Etablissement de la Compagnie des Indes*, tom. ii. p. 255. *Navarette Tratados Historicos de la Monarchia de China*, lib. vi. cap. 27. *Voyage aux Indes Orientales*, par Mons. Duquesne, chap. xlvii.—(*h*) *Laet Descript. Indiæ Occident.* lib. xviii. cap. i. p. 688. *De Nieuwe en Onbekede Weereld, of Beschryving van America en 't Zuid-land*, door Arnoldus Montanus, p. 548. *Heylin's Cosmography*, lib. iv. p. 1115.—(*i*) *Strabon. Geograph.* lib. xiv. *Isolario di Thomaso Porcacchi*, lib. ii. p. 149. *Robbe Methode pour apprendre la Géographie*, lib. iii. chap. 1.—(*k*) *Sandys's Travels*, lib. iv. p. 222. *Heylin's Cosmography*, lib. iii. p. 630.—(*l*) *Varenii Geograph. universalis*, §. iv. cap. 16. prop. 20. *Historical Register*, vol. iii. p. 26.—(*m*) *Mercure Historique*, tom. lxxvi. p. 89. and the *Gazettes* during the Winter of 1755.

of Borneo (*n*), we shall find, that it is not barely our being an island exempts us, but the infinite wisdom and goodness of the Supreme Being, who hath so disposed all things in this happy country, that none enjoys more solid advantages, or is exposed to fewer untoward accidents from this, otherwise at least in respect to men, indomitable and irresistible element.

THE first in the natural order of discoursing upon waters, is that which descends from the firmament, and of which the wisest and greatest men have wished, and with much reason, that we had a full and complete philosophic history (*o*). Since we have not, and it is very uncertain when we may, I think it necessary, or at least not improper, to take notice of some points, which otherwise I should not have mentioned. In certain countries, as particularly on the coast of Peru, it does not rain at all, but the land is supplied, in consequence of its climate and situation, with moisture by dews (*p*). In other countries it rains but seldom, and there, in fact, the land is sufficiently moistened by the redundancy of rain, or, which is the same thing, the melting of snows, and overflowing of lakes from other countries (*q*). Thus the annual inundations of the Niger refresh the parched plains of Africa (*r*); and thus the periodical overflowings of the Nile, assisted by the labour, and regulated by the skill of the ancient Egyptians, secure plenty to the present inhabitants of Egypt, in spite of the idleness and ignorance in which they live (*s*). If in this island they are more frequent, and more copious, than in many others, we ought to conclude that Providence is wise and generous, but not profuse. We shall be clearly informed, and thoroughly convinced of this, if we consider the subject with any tolerable degree of attention. The far greater part of our rains, as we have shewn in the former chapter, come to us from the ocean, and in that respect are not only greater in quantity, as being derived from so inexhaustible a source of vapours, more being evaporated from thence in frosty, than are exhaled in warm weather; but likewise in their nature; for, exclusive of their being warmer, from the causes that have been before assigned, they must be likewise purer than if they came from the land, though at the same time loaded with oil, bitumen, sulphur, salts of various kinds, and more especially bittern (*t*). This, as we have already said, renders them highly instrumental in vegetation, and is the great source of that almost perpetual verdure

(*n*) A Voyage to and from the Island of Borneo in the East Indies, by Captain Daniel Beeckman, London, 1718, 8°.—(*o*) Shaw's Abridgment of Bacon, vol. iii. p. 492.—(*p*) Frezier, Relation du Voyage de la Sud, p. 369, 370. Relacion del Viage al Reyno del Peru, por D. Jorge Juan, lib. i. cap. 6.—(*q*) Hernandez de Oviedo Hist. Gen. des Indias, lib. ii. cap. 9.—(*r*) Marmol. Africa, tom. i. lib. i. cap. 17. p. 53. Plin. Hist. Nat. lib. v. cap. 4. P. Labat, Nouvelle Relation de Affrique, tom. ii. p. 161.—(*s*) Aristides in oratione Ægypt, tom. iii. p. 615.—(*t*) Philosoph. Transact. N°. clxxxix. Derham's Physico-Theology, lib. ii. chap. 5. p. 48. Varenii Geograph. universalis, §. iv. cap. 16.

with which these islands are so lastingly clothed (*u*). But, besides these, our rains have another very great and important quality, which is, that from this mixture they become a perfect lixivium, by which they are enabled to melt and dissolve whatever kind of particles they have force enough to abrade or tear away (*w*); and hence, as we shall presently shew, they become possessed of such a variety of properties (*x*), conducive to the sustenance, health, and pleasure of man; qualities which, though, generally speaking, they escape our senses, have nevertheless such remarkable, as well as apparent effects, as sufficiently distinguish, and make them known to the understanding.

THERE have been very different opinions as to the origin of springs; some have ascribed them to vapour and gross air, condensed into water, in the caverns of the earth, gliding in that form through very small passages, till by an accumulation of weight and bulk they enlarge them as they approach the surface, and then force an outlet where the crust is thinnest (*y*). Others have thought that there is a circulation of water through the globe, in some such manner as of blood through the human body, so that the waters of the sea, by subterraneous channels, ascending the highest hills, as we evidently perceive moisture is sucked through a heap of sand, a sponge, or a sugar-loaf, becoming perfectly fresh by this percolation, break forth again on the sides, and, as they can accumulate strength, direct their course back to the parent deep (*z*). A third opinion attributes the production of springs to rains, which very frequently fall upon, and vapours, which are continually attracted by, hills and rising grounds, into which soaking deep, they gradually open themselves channels through so porous a body as the earth commonly is, till at length, by their collected weight, they make their way through the soil, according to their strength, and either burst with violence, or gently ouze out and trickle down its surface (*a*). It is not at all necessary that we should enter into this controversy, since it is allowed, even by those who contend that springs come from the sea, that this is to be confined only to those that are perennial, or such as always flow, and that temporary fountains may very probably arise from condensed vapours, and the fall of rain; and besides, whatever way they are pro-

(*u*) Philosophical Transactions, N^o. cxxvii. Boyle's Works, vol. ii. p. 498, 499.—(*w*) Boyle's Works, vol. ii. p. 519--522. Musschenbroek's Elements of Natural Philosophy, vol. ii. p. 247.—(*x*) Ol. Rudbeck. Atlantica, p. 128. Derham's Physico-Theology, lib. iii. chap. 4.—(*y*) Aristot. Opera, tom. i. Meteorol. lib. i. cap. 13, 14. Kircher. de Arte Magnetica, lib. iii. cap. 3. Shaw's Abridgment of Bacon, vol. iii. p. 559. See also Doctor Woodward's Theory of the Earth.—(*z*) Senec. Quæst. Nat. lib. iii. cap. 5. Plot Tentamen Philosoph. de Origin. Font. Derham's Physico-Theology, book ii. chap. 5.—(*a*) Varenii Geograph. univers. §. iv. cap. 16. prop. 5. Ray's Physico-Theological Discourses, p. 90. The learned and judicious Doctor Halley's Discourse, before cited, sets this Matter in the clearest Light.

duced, the position will hold true, that the plenty and the quality of springs are the surest indications of the nature and properties of the soils through which they pass (*b*), which is the point that we principally insist upon. As to the frequency of springs, we may venture to affirm, without fear of meeting with contradiction, that they are no where more frequent than in the British islands. A diligent and learned writer gives us a very singular instance of this at Willowbridge park, in Staffordshire, where, he assures us, there are no fewer than sixty springs within the small space of twenty yards square (*c*). This indeed is very extraordinary; but perhaps it is not less so, that there is hardly any considerable district in these islands, where they are so defective as to create even a small degree of distress. It has been urged against the opinion of their proceeding from rain and vapours, that they are common alike in countries where there are fewer eminences; but perhaps when duly weighed, this argument will not prove so much as it seems to do at first sight. For countries may be very much elevated by their situation, though they do not swell apparently into mountains, so as to affect the sense of every spectator. For the Stour and the Ouse rise both in Oxfordshire (*d*), the former at Swalcliff, which, after a long course, empties itself into the Severn, on the west; and the other at Fritwell, which, after running through Buckinghamshire, Bedfordshire, Huntingdonshire, and Cambridgeshire, falls into the German ocean at Lynn, in Norfolk; so that on both sides there must be a real declivity through all this space, which will sufficiently facilitate the breaking out of springs; and perhaps it is to this situation and structure of our island, that their frequency is in a great measure owing.

THE writers of natural history mention a variety of springs that, from the particles they dissolve, sustain, or absorb, in passing through the earth, are distinguished by remarkable properties. Thus both Strabo and Pliny (*e*) take notice of certain fountains in the island of Gades, now Cadiz, in Spain, which had a flux and reflux directly contrary to that of the tides. The very same thing has been observed in a spring at Newton, in Glamorganshire (*f*). Authors mention a fountain in Galicia, that ebbs and flows regularly as the sea does, though seventy leagues from its coasts (*g*). The like is observed at the village of Marzac in Perigord (*h*), that follows the tides of the Garonne, at Bourdeaux. In Wales, near the mouth of the river Severn,

(*b*) Vitruv. lib. viii. cap. 1. §. 5. Varenii Geograph. univers. §. 4. cap. 17. Doctor Blondel's Discourse on the Baths of Aix la Chapelle, and incidentally of Baths and mineral Springs in general.—(*c*) Plot's Natural History of Staffordshire, p. 61--103. Fuller's Worthies in Staffordshire.—(*d*) Plot's Natural History of Oxfordshire, chap. ii. §. 17.—(*e*) Strabonis Geograph. lib. iii. p. 172. Plin. Hist. Nat. lib. ii. cap. 97--103.—(*f*) Camden's Britannia, vol. ii. col. 737.—(*g*) Les Delices du l'Espagne et du Portugal, par Don Juan Alvarez de Colmenar, tom. i. p. 140, 141. Tour through Spain and Portugal, by Udal ap. Rhys, p. 28.—(*h*) Andr. de Chene Antiq. des Villes de France, p. 735, 736.

is a pool, called Linliguna, which swallows up the water of the flood tides as long as they flow (but is not apparently increased thereby); yet when they begin to ebb, then the lake begins to rise, and to eject the water with great violence on all sides over its banks (*i*). Laywell, near Torbay, ebbs and flows very often in an hour, sometimes sixteen, sometimes twenty times (*k*). At Giggleswick, in Craven, which is a district in Yorkshire, there are several small springs, the middlemost of which ebbs and flows four times in an hour. The famous Zirchnitzer sea, in Carniola, is a curiosity to which we can shew nothing equal (*l*). Yet something like it appears at Gips, upon the woulds in Yorkshire, where there are springs which rise five or six yards in height, and fall into the dales, and form a little river when most other springs are dry (*m*). In Guienne, near the church of St. Jean d'Angeli, there is a lake, that hath next to no water in it in winter, but abundance in summer (*n*). At Lambourne, in Berkshire, the springs, from which flows a little stream, called Lambourn river, fail about the middle of September; but, about February, they return, and remain high all the summer (*o*). It was observed, as a thing very extraordinary, that they were rather higher than usual in the great drought of 1681 (*p*). At Claydon, in Oxfordshire, on the south side of the town, there is a small spring, that rises in the street, which runs all the year, but is observed to run most in dry weather. The like at Ewelme, the springs of which are low in winter, and in summer remarkably high, like those of Lambourn (*q*).

THERE is a fountain near Grenoble, in Dauphine; another near Hermanstadt, in Transylvania; a third near Chermay, a village in Switzerland; a fourth in the canton of Friburg; and a fifth not far from Cracow, in Poland, the waters of which take fire, and burn (*r*). There is or was a famous spring of the same kind near Wigan in Lancashire, which, upon the approach of a lighted candle, would take fire, and burn like spirits of wine, the flame continuing sometimes for a whole day (*s*). Another, more singular, was discovered in 1711 at Broseley, near Wenlock, in Shropshire, which had an iron cistern placed over it, with a hole in the middle, through which you might see the water. This not only took fire, but burned so briskly as

(*i*) Additions to Camden's Britannia.—(*k*) Philosophical Transactions, vol. xvii. p. 908--911. Childrey's Britannia Baconica, p. 157.—(*l*) Travels of Doctor Edward Brown in divers Parts of Europe, p. 80, 81. Edit. 1685.—(*m*) England described by Edward Leigh in Yorkshire, p. 219.—(*n*) Andrew Du Chene, Antiquitez des Villes de France, p. 729.—(*o*) Ashmole's Antiquities of Berkshire, vol. ii. p. 244. Sylvester's Translation of Du Bartas, the third Day of the first Week, p. 55. See also a very sensible Account of the Cause of this, and other Springs of the like Kind, in the Gentleman's Magazine, vol. xiii. p. 585.—(*p*) Plot's Natural History of Staffordshire, chap. ii. §. 46.—(*q*) Plot's Natural History of Oxfordshire, p. 29.—(*r*) Nouvelle Description de la France, par Monf. Piganiol de la Force, tom. iii. p. 240, 141. Philosophical Transactions, N^o. clxxii. p. 1036.—(*s*) Philosophical Transactions, N^o. xxvi. p. 482, 483. Mr. Blunden's Observations relating to Lancashire.

to shoot up flames eighteen or twenty inches; so that in a kettle of water put over the cistern, a joint of meat was boiled sooner than over any other fire; and yet (as is also observed at the well near Wigan), the water was exceedingly cold the moment before it was lighted, and the moment after, that by covering the well, this fire was put out. After some years this fountain ceased burning, but in 1747 broke out again, and continued till 1755, when, by sinking a coal pit in its neighbourhood, it was totally extinguished (*t*). In the province of Las Charcas, in Peru, there is a fountain, out of which issues a considerable current, of a colour almost as red as blood (*u*). Near Yeoville, in Somersetshire, there is a pool, which contains water of a green colour, supposed to receive this tincture from some latent veins of vitriol (*w*). At Basil there is a spring of a bluish colour (*x*). At Eglingham, in Northumberland, there is water comes from an old drift, formerly made to drain coal pits, which has an atramentous quality, and is turned as black as common ink by an infusion of galls (*y*). At the foot of Mount Zibba, in the duchy of Modena, and at Gabian, in the road from Montpellier to Beziers, in Languedoc, there are springs, the waters of which are mixed with oil, that floats upon the surface. The inhabitants take care to separate this bituminous matter, by first putting the water into a barrel, and then drawing it at a tap till the oil begins to appear, when they stop (*z*). Of this kind there is a very remarkable spring at a village in Shropshire, which from thence derives the name of Pitchford (*a*); and another, much celebrated for medicinal uses, at Moffat, in the Shire of Annandale, in North Britain (*b*). There are several springs in France, and in other countries, supposed to have a petrifying quality (*c*); of this kind is the dropping well at Knaresborough, in Yorkshire, several in Scotland, and in Ireland, and one near Mendip hills, in Somersetshire (*d*). It is reported of those springs in France, that the waters of them are drank without any visible ill effects (*e*); and the same is affirmed of these (*f*). We might have multiplied instances under every head, and our collections would enable us to enumerate many more singularities of a like

(*t*) Philosophical Transactions, N^o. cccxxxiv. p. 475, 476. See also Mr. Perry's complete History of this Spring, in the Gentleman's Magazine, vol. xxv. p. 303. —(*u*) Frampton's Curiosities from the Newfound World, chap. ix. —(*w*) Additions to Camden's Britannia —(*x*) Philosophical Transactions, N^o. viii. p. 135. —(*y*) Doctor Jurin's Notes upon Varenus's Geography, p. 386. —(*z*) Ray's Travels, vol. i. p. 202, 396. Nouvelle Description de la France, par la Force, tom. iv. p. 11. —(*a*) Camden's Britannia, vol. i. p. 650. Short's History of Mineral Waters, p. 64. —(*b*) Roberti Sibbaldi Prodr. Hist. Nat. Scot. lib. i. cap. 10. p. 24, 25. —(*c*) Nouvelle Description de la France, par la Force, tom. v. p. 314. Ray's Travels, vol. i. p. 183. Tour through Spain and Portugal, by Udal ap Rhys, p. 192. —(*d*) Short's History of Mineral Waters, p. 105. Camden's Britannia, vol. i. p. 83. Roberti Sibbaldi Prod. Histor. Nat. Scot. lib. i. c. 9. p. 21. The ancient and present State of the County of Down, chap. viii. p. 165. —(*e*) Histoire de l'Academie Royal des Sciences, A. D. 1720. —(*f*) Short's History of Mineral Waters, P. i. p. 109, 110.

nature, if what have been produced were not abundantly sufficient to support all that we propose to deduce from them, which is, that as their several properties, of what nature soever they be, are accounted for from the waters being impregnated by the particles of different soils through which they pass, the same reason will hold with regard to ours, and consequently prove, that there is hardly any kind of soil, even in the most distant parts of the globe, which we have not, or at least something that is very like it, in these islands.

THE clear and convincing evidence arising from what has been, and will be further said in this chapter, in respect to the vast variety of soils in this island, joined to what was advanced in the former, as to the diversity of our climate, afford just grounds to expect that many things may be produced here, which perhaps would not succeed in some countries very near us upon the continent. We should be able to speak with more certainty and precision to this point, if we had any accurate and distinct accounts of the trees, shrubs, grain, herbs, flowers, and whatever else could be remarked, in the neighbourhood of these extraordinary springs in foreign countries, and more especially in those most remote from our own (*g*). In order to explain my meaning more clearly, to justify the pains I have taken, and to render it certain this is no chimerical notion, let me observe, that, from the resemblance of the leaves and roots of oaks and vegetables about Gisborough, in Yorkshire, to those about Puteoli, in Italy and the vicinity of a medicinal spring, the original owner was induced to look for, and establish those valuable allom works in its neighbourhood (*h*). I will add, that an ingenious correspondent of mine, Mr. Charlton, of Whitby, informs me, that what the vulgar call snake stones, and the learned cornuammonis, and many other singular petrifications, the curious in those parts attribute to the penetrating effluvia of allom; this is the more likely, as these stones are also met with at the allom works not far from Rome, at those near Rochelle, at those near Lunenburgh, and in some places where allom has been discovered in Virginia (*i*). If therefore the same kind of soil produces nearly the same sorts of things wherever it is found and mineral, and other extraordinary springs, are the surest indications of like soils, then the prosecution of this inquiry may be probably attended with some advantages. Let us now return to the business of this chapter. But before we quit this subject of springs, their great utility and apparent benefit to these nations, constrains us to insist more particularly on the brine, or salt springs in South Britain which, though not peculiar to this island, are, however, in the countries on the continent (some few excepted), far from being common.

(*g*) Childrey's *Britannia Baconica*, p. 75, 159. Hook's *Posthumous Works*, p. 285, 286, 287.—(*h*) *Camdeni Britannia*, p. 587.—(*i*) Doctor Johnson's *Notes*, relating to the Natural History of Yorkshire.

THERE are some of these in several different counties; and perhaps, upon a due search, others also might be discovered in many more. There is a salt spring at East Chennock (*k*), in Somersetshire, about twenty miles from the sea. Another at Leamington, in Warwickshire, very near the river Leam, which, however, is but weak (*l*). Such a spring likewise runs into the river Cherwell, in Oxfordshire (*m*); and several more in Westmoreland and Yorkshire, which as they are but poor, and in most of these countries few being scarce or dear, are not wrought, but, however, ought to be remembered. At Barrowdale, near Grange, three miles from Kewick, in Cumberland, a pretty strong spring rises in a level, near a moss, sixteen gallons of the waters of which yield one of pure salt; which is the more remarkable, when it is considered that the same quantity of salt cannot be obtained by boiling less than twenty-two gallons of the water of the German ocean (*n*). At a place called Saltwater-haugh, near Butterby, in the bishoprick of Durham, there are a multitude of salt springs, which rise in the midst of the river Weare, for the space of about forty yards in length, and ten in breadth; but particularly one out of a rock, which is so strong, that, in a hot summer's day, the surface will be covered with a pure white salt (*o*). One would imagine that this singular tender of nature's kindness might be very beneficially improved by the assistance of art. At Weston, in Staffordshire, there are brine pits which afford about a ninth part of very fine white salt. There are others at Enson St. Thomas, and in the parish of Ingestre, but so weak that they are not wrought; though it is believed that, by boring, stronger springs might be found in the neighbourhood (*p*). In Lancashire there are several salt springs (*q*), but (if we except that of Barton, which is as rich as the spring at Northwich) by no means so famous as those of Cheshire, called in general by the name of the WICHES, which seems to be of Saxon original, though the meaning of the term is not well known (*r*).

NAMPTWICH, upon the river Weever, has a noble spring not far from the river, so rich, that it yields one-sixth part of pure white salt (*s*). At six miles distance stands Northwich, at the confluence of the Weever and the Dan, where the brine is still richer than the former, since they obtain six ounces of salt from sixteen ounces of water. There are, even at this day, some visible remains of a Roman causeway between these

(*k*) Philosophical Transactions, N^o. lvi. p. 1130.—(*l*) Camden's Britannia, vol. i. col. 599. Short's History of Mineral Waters, p. 187.—(*m*) Plot's Natural History of Oxfordshire, chap. ii. §. 13.—(*n*) Short's History of Mineral Waters, p. 85.—(*o*) Philosophical Transactions, N^o. clxiii p. 726. Childrey's Britannia Baconica, p. 165.—(*p*) Plot's Natural History of Staffordshire, chap. ii. §. 103, 112.—(*q*) Short's History of Mineral Waters, p. 85.—(*r*) Spelman's Glossarium, p. 571. Lambard's Topographical Description of Britain, p. 446.—(*s*) Doctor Jackson's curious Account of the Salt Springs at Nantwich, in the Philosophical Transactions, N^o. liii. p. 1063.

two towns (*t*). The inhabitants of Wales, who, before that country was incorporated into England, were supplied chiefly, if not only, with that necessary commodity from these two towns, called the former Hellath Wen, and the latter Hellath Du, i. e. the white and the black salt pit (*u*). In 1670, a rock of salt was discovered at a small distance from Northwich, which has been since wrought to a great depth, and to a vast extent, so as to be justly esteemed one of the greatest curiosities in England; and it is, with the highest probability believed, that there is an immense body of fossil salt in the bowels of the earth, under this whole tract of country, since, upon boring, brine pits have been found in many places on both sides of the river Weever (*w*). This is the more likely, because at Middlewich, which stands at the confluence of the Croke and the Dan, there are salt springs, with a fresh brook running between them (*x*). The brines from these pits are of equal strength, but, when mixed, they commonly obtain four ounces of salt from a pound of brine. Experience shews that, in these springs, the water is strongest nearest the bottom, richer in dry weather than in wet, and when long drawn than when first wrought. But these are no rules in respect to other salt springs, since in those of Franche Compté, the brine is strongest in wet weather (*y*). There are divers other bodies dissolved in these brines besides salt; in some a sulphureous substance, which sublimes, as the brine heats, a sort of dirty ocher, which discolours the brine, but, if suffered to stand, speedily subsides; and, in most brines, a kind of calcarious earth, which settles to the bottom of the pans (*z*). The size of these pans is not always the same, but generally speaking, they are so made as to hold about eight hundred gallons. They resemble in form the pans used for sea water, are of considerable length and breadth, but very shallow. It has been thought, that if these pans were of a circular make, it would be, in many respects, more advantageous, as well as more convenient. But the best salt of this kind that is any-where made in England, is at Droitwich, anciently Dyrtwich, or Dirtwich, in Worcestershire, which are wrought only from Midsummer to Christmas; not, as some have imagined, because the brine then fails, but that the proprietors may keep up the market (*a*). It appears clearly from the highest authority, that of doomes-day book, the brine pits here, as well as the other Wiches in

(*t*) Camdeni Britannia, p. 460, 461. Childrey's Britannia Baconica, p. 129. Doctor Stukeley's Itinerarium Curiosum, p. 54, 55.—(*x*) King's Vale Royal of England, p. 68. Camdeni Britannia, p. 461.—(*w*) Philosophical Transactions, N^o. lxvi. p. 3015. Doctor Stukeley's Itiner. Curiosum, p. 54.—(*x*) Camdeni Britannia, p. 462. Childrey's Britannia Baconica, p. 130.—(*y*) Nouvelle Description de la Franche Compté, p. 363. According to their Calculation, the Brine must yield a fifth Part pure Salt, or it is not worth working.—(*z*) Doctor Jackson's Account before cited. Doctor Lister's Observations on the midland Salt Springs. Leigh's Natural History of Lancashire, p. 44.—(*a*) Camdeni Britannia, p. 433. Childrey's Britannia Baconica, p. 115, 116. Lambard's Topographical Description of Britain, p. 446.

Cheshire, were wrought, and to great advantage too, before the Norman conquest (*b*); which confirms the opinion the best antiquaries have entertained, that, as well as for many others, so for the discovery of this natural benefit, we stand indebted to the Romans. In other places they make use of butter, blood, ale, and various kinds of seasonings, as they call them, in order to make the salt grain properly; but here they use only the whites of eggs, and those also but in very small quantities (*c*). They obtain commonly four ounces of salt from a pound of water; and in order to gain some idea of the value of those salt works, we shall observe, that, if we have been rightly informed as to the medium of the duty at Droitwich, they make upwards of two hundred and eighty thousand bushels annually (*d*). Great improvements have been made, and much greater might be still made in the management of these works, as is evident from a very learned, ingenious, and solid performance upon this subject, than which perhaps there is not any thing more concise, or more correct, in any language (*e*).

In respect to the medicinal, as they are called, from their effects, or mineral waters, as they are stiled from their contents, there are few countries in Europe that can boast of more; and, the compass of our islands considered, it may be, very few, of so many, so salutary, and the virtues of which have been so well established, not from vulgar experience only, but from the repeated examinations of the most skilful physicians. We may rationally attribute the uncommon frequency of these healing springs, to the lixivious quality of our rain water, for which we have already accounted; to the variety of rich soils, with the spoils of which, from their property of dissolving, they must be fraught; and the wonderful and inimitable chemistry of nature, by which they are so happily impregnated as to become the easiest, surest, and most acceptable remedies of the most grievous, and of some, which otherwise might prove incurable diseases (*f*). If we should attempt so much as to enumerate these, it would require a moderate volume. But, in support of this assertion, to mention a few of the most celebrated, and in different parts of these islands, seems to fall within the bounds of our design, and of consequence to become our duty.

(*b*) Camdeni Britannia, p. 433. Mr. Squire's Transcript of Doomsday Book at the close of Sir P. Leicester's History of Cheshire, p. 427. Dr. Stukeley's Itinerarium Curiosum, p. 54.—(*c*) Doctor Thomas Rastell's accurate Account of the Droitwich salt springs, in the Philosophical Transactions, No. cxlii. p. 1059.—(*d*) From private information.—(*e*) This excellent piece is intitled, "The Art of making common Salt, as now practised in most parts of the world, with several improvements proposed in that art for the use of the British dominions, by William Brownrigg, M. D. F. R. S. London, 1748, 8vo."—(*f*) Boyle's Heads for the Natural History of Mineral Waters, in the fourth volume of his works, and in the third of Dr. Shaw's Abridgment. Martini Listeri Exercitationes duo de Fontibus medicatis Angliæ. Doctor Beal's Observations in the Transactions. Doctor Allen's Preface to his Natural History. Doctor Shaw's Translation of Hoffman's Treatise, and his own Dissertation on the same subject.

IN England there are, Aſton (*g*), in Middleſex, a purging water. Ailweſton, or Hailweſton, in Huntingdonſhire, enjoys the benefit of two ſprings, one brackiſh, found to be very effi-
cacious in all cutaneous diſeaſes (*b*); the other freſh, and very ſerviceable in the recovery of weak eyes (*i*). Aſtrope Wells, in Northamptonſhire, which have been, for many chronic diſeaſes, in great eſteem for above fourſcore years (*k*). Barnet, in Hertfordſhire, a purging water, formerly, when fewer of theſe ſalubrious ſprings were known, as a very gentle and ſafe chalybeate, deſervedly in great eſteem (*l*). Benthall, near Wenlock, in Shropſhire, an excellent chalybeate ſpring (*m*). Briſtol hot Wells, in Somerſetſhire, ſo much, and ſo juſtly, celebrated for innumerable cures (*n*). At Brockhole, near Preſton, in Lancaſhire (*o*), there are two chalybeate ſprings, the upper and lower; the latter eſpecially much commended. Buxton Wells, in Derbyſhire (*p*); Cheltenham, in Glouceſterſhire (*q*), at preſent in very high repute. At Comnor, or Cumner, in Berkhſhire, there is a very whoſome purging ſpring, the waters of which are lent twice a week to Oxford, where they are in good credit (*r*). Croft, in Yorkſhire, on the borders of the biſhoprick of Durham, of the ſame nature (*s*), and little inferior to thoſe of Harrowgate. Clifton, near Dedington, in Oxfordſhire, within a few yards of the river Charwell, ſaid to contain the moſt of an alkaline ſalt of any ſpring in England (*t*). At Doeſfield, in Derbyſhire, there are four chalybeate ſprings, that riſe within a ſmall diſtance of each other (*u*). Dulwich, in Kent, has been famous, for more than a century, for a purging ſpring, which has performed great cures in ſcrophulous, ſcorbutick, paralytick, and other ſtubborn diſeaſes. There is a new ſpring, with the ſame qualities, lately diſcovered on this ſide of Dulwich, and much eſteemed. Epfom, or Ebbesham, in Surry, which was found in 1630, ſuppoſed by ſome (though, as we ſhall ſee hereafter, this is a miſtake) to be the firſt purging water diſcovered in England (*w*). In a marſhy meadow, called Fiſh-pool Flat, near Wirkſworth, in Derbyſhire, ſprings a chalybeate little

(*g*) Boyle's Works, vol. iv. p. 246. Allen's Natural Hiſtory of chalybeate and purging waters in England, p. 127. Hoffman's Treatiſe on Mineral Waters, p. 82. —(*b*) Camdeni Britannia, d. 366 —(*i*) Childrey's Britannia Baconica, p. 107. —(*k*) Short's Hiſtory of Mineral Waters, P. ii. p. 45. —(*l*) Boyle's Works, vol. iv. p. 247. Allen's Natural Hiſtory of chalybeate and purging waters in England, p. 149. Chauncey's Hiſtory of Hertfordſhire, p. 6. —(*m*) Short's Hiſtory of Mineral Waters, P. ii. p. 39. —(*n*) Childrey's Britannia Baconica, p. 36. Sir John Floyer's Hiſtory of Cold Bathing, p. 239. —(*o*) Short's Hiſtory of Mineral Waters, P. ii. p. 39. —(*p*) Camdeni Britannia, p. 421. Childrey's Britannia Baconica, p. 112. Stukeley's Itinerarium Curioſum, p. 53. Short's Hiſtory of Mineral Waters, P. i. p. 37—43. —(*q*) Short's Hiſtory of Mineral Waters, P. ii. p. 77. —(*r*) Aſhmole's Hiſtory and Antiquities of Berkhſhire, vol. i. p. 143. Short's Hiſtory of Mineral Waters, P. ii. p. 80. —(*s*) Ibid. p. i. p. 299. —(*t*) Plot's Natural Hiſtory of Oxfordſhire, chap. ii. ſect. 40—43. Short's Hiſtory of Mineral Waters, P. ii. p. 81. —(*u*) Ibid. P. i. p. 276, 277. —(*w*) Additions to Camden's Britannia. Aubrey's Antiquities of Surry, vol. ii. p. 190, 191. Allen's Natural Hiſtory of chalybeate and purging Waters in England, p. 122.

known, highly commended, esteemed the only one of its kind, and much resembling Pyrmont water (*x*). At Grantham, in Lincolnshire, there is a pleasant chalybeate spring, which might be also beneficially used as a cold bath (*y*). At Guile Thwait, or Gillfoot, near Rotherham, in Yorkshire, is a spring famous for restoring the use of their limbs, to such as have lost them by working in metals (*z*). Hamstead Spaw, though not mentioned by Doctor Allen, or indeed by any other eminent author, was once in very great credit, upon the recommendation of Doctor Gibbons, who thought it not inferior to any of our chalybeate springs, and coming very near to Pyrmont in the quality of its waters. The reputation of the spring did not long survive its patron; so powerful is fashion as to a point, in which, of all others, fashion ought to have no influence. In vain the ingenious Doctor Soame laboured to retrieve their fame; and yet the best judges of this subject have allowed there was merit in his performance, and that these waters are really excellent in their kind, and retain their mineral spirit surprizingly. At Islington, in Middlesex (*a*), highly commended on his own knowledge, and from his experience, by a very learned and candid physician. At Kedleston, in Derbyshire, in the middle of the park belonging to Sir Nathaniel Curzon, rises an excellent spring, which has performed amazing cures in scrophulous cases, lameness, white swellings, weak joints, and worms, though of an unpleasant scent (*b*).

At Knaresborough, in Yorkshire, there are many admirable springs, the virtues of which have been celebrated by many able writers. They are better known at present by the name of Harrogate, which is but two miles distant, and near which one of the principal springs lies. They are said to have been discovered in 1571, and are still in as great credit as ever (*c*). In the parish of Lambeth, in the county of Surry, there are two purging springs, stiled from the adjacent fields, St. George's Spaw; and from a public-house in the neighbourhood, the Dog and Duck water, the virtues of which, long ago discovered and experienced, but, as happens very frequently in things of this kind, in some degree forgot, till of late years revived and applauded, from having been as strictly examined, and consequently their nature and efficacy as thoroughly ascertained, as perhaps any in this island (*d*). They are excellent for cutaneous foulnesses, and scrophulous diseases; have been affirmed to

(*x*) Short's History of Mineral Waters, P. i. p. 276.—(*y*) Idem. *ibid.* p. 278.—(*z*) Idem. *ibid.* p. 269.—(*a*) Allen's Natural History of chalybeate purging Waters in England, p. 27. Mortoni Phthisiolog. lib. ii. cap. 2. Hoffman on Mineral Waters, translated by Shaw, p. 142.—(*b*) Short's History of Mineral Waters, P. i. p. 305.—(*c*) Allen's Natural History of Chalybeate and Purging Waters in England, p. 19. Hoffman on Mineral Waters, translated by Shaw, p. 55. Short's History of Mineral Waters, P. i. p. 236, 242, 246, 259, 286. Additions to Camden.—(*d*) Allen's Natural History of the Chalybeate and Purging Waters in England, p. 138—143.

cure, but are certainly known to retard, the progress of a cancer (*e*). Latham Spaw, in Lancashire, was formerly called Maudlin Well, and has been famous for near a century, being celebrated for the cure of the dropsy, gravel, stone, scurvy, and worms (*f*). Lincomb Water, near Bath in Somersetshire, discovered lately, but is thought to have some peculiar virtues in respect to a strangury, scrophulous cases; and white swellings (*g*). At the west end of the town of New Malton, in Yorkshire, rises a spring, which has been, by the best judges allowed to come the nearest to the German Spa of any of our English waters; and is also found, by experience, to retain its virtues, and bear carriage better, than most of its kind (*h*). We ought therefore to try whether, by exporting this celebrated water, the virtue of which would quickly recommend it in any country, we might not be able to balance the account for Spa, Pyrmont, and other foreign mineral waters, to which we have done so much justice and honour here. On Malvern Hills, which divide Worcestershire from Herefordshire, there are several medicinal, though not mineral springs, which, through a long course of years (indeed longer than most mineral waters) have been famous for healing cutaneous eruptions, obstinate old sores, warts, tetters, and for strengthening the eyes (*i*). It was long since very carefully observed, and perhaps ought still to be remembered, that the virtues of these springs, though held not to be mineral, are strongest and most efficacious in dry summers (*k*). At Maudsley, near Preston, in Lancashire, there is a spring, approaching closely in its virtues to the Harrowgate water; and these virtues are said to have been first discovered by the observation of the country people, that pigeons resorted thither, in great flocks, to pick up the candied salt on the margin of the fountain in very hot summers (*l*).

NEVILLE HOLT, in Leicestershire, on the borders of Northamptonshire and Rutland, derives its name from the noble family of Nevile, by whom it was long possessed (*m*). The spring, which is supposed to be the only one of its kind in Britain (*n*), was accidentally discovered, in the year 1728, by a farmer, who thought to have made a pond for the use of his cattle; but as they could not be brought, by any means, to

(*e*) Doctor Hales's accurate Observations on these Waters, in Philosophical Transactions, N^o. 495.—(*f*) Doctor Leigh's Natural History of Lancashire, p. 34. Doctor Borlase, in his Treatise, intituled Latham Spa, published in 1670. Short's History of Mineral Waters, P. ii. p. 34, 35.—(*g*) An Inquiry into the Contents and medicinal Virtues of Lincomb Spa Water near Bath, by W. Hillary, M. D. 1742.—(*h*) Simpsoni Hydrologia Chémica, p. 134, 135. Martini Listeri de Fontibus medicatis Angliæ Exercitationes, p. 32. King's Malton Spa. Short's History of Mineral Waters, vol. i. p. 196—210.—(*i*) Boyle's Works, vol. v. p. 464. Philosophical Transactions, N^o. xix. p. 358, 359.—(*k*) Doctor John Beal's Observations, in the Philosophical Transactions, N^o. lvii. p. 1161.—(*l*) Leigh de medicatis Fontibus in Agro Lancast. p. 126. Short's History of Mineral Waters, vol. ii. p. 68, 69.—(*m*) It is not improbable that the mountains behind Holt contain Minerals of several kinds.—(*n*) Doctor Short's Treatise of Mineral Waters, P. ii. p. 81, 82.

drink the waters in it, they remained about two years longer before they were considered in a medicinal light; in which, however, they were no sooner considered, than the speedy and surprising cures they made, in some of the most stubborn disorders, rendered Holt springs very famous in the neighbourhood, and, quickly after, through the whole kingdom. The best judges, and those who have been most conversant with mineral waters, agree in treating them as equally singular and powerful. Applied externally, they cure most diseases of the eyes, heal fresh wounds suddenly, cleanse and dry up old ones. Taken inwardly, they have done wonders, not only in restoring appetite, and removing all symptoms of the scurvy, but in curing the rheumatism, stone, and gout. In the bloody flux, spitting of blood, and other distempers of that kind, they are peculiarly successful; and Nevile Holt is, in short, one of the noblest mineral springs we have to boast (*o*). Newnham Regis, or King's Newnham, in Warwickshire, five miles from Coventry, has three beautiful and celebrated springs, alike commended for external application, as vulneraries; and for performing great cures in the stone, and other distempers, inwardly taken (*p*). These waters may dispute, in point of antiquity, with most (*q*); and honest John Speed tells us, they have a petrifying quality, as himself observed in certain twigs, that were part of them ash, and part become stone. He likewise adds, that being drank with salt, they are laxative; but that, if sugar be put into them, they bind (*r*). They still keep up their reputation in the country, more especially for green and old wounds; from the cure of which they first became famous. North Hall, in Hertfordshire (*s*), is of the same nature with Epsom water, but not half so nauseous, or so powerful (*t*).

AT Queen's Camel, in Somersetshire, there is a very remarkable spring, exceedingly cold to the touch, and very offensive to the smell (*u*). It does not appear to be in any great credit with the learned; but the experience of the country, which is good evidence in these cases, declares it generally efficacious in the King's Evil. Rougham springs, about three miles from Cartmall, in Lancashire (*w*), rise from the bottom of a rocky mountain, affording both marble and limestone, and on its surface producing samphire, and other maritime plants. These springs front towards the west, and are chiefly impregnated with marine and bittern salt. They have very good effects in the gravel,

(*o*) A Discourse of the Virtues and Uses of Nevile Holt Water, London, 1742, 8vo.—(*p*) Short's Treatise of Mineral Waters, P. ii. p. 41.—(*q*) A brief Discourse of certain Baths, or medicinal Waters, in the County of Warwick, near unto a certain village, called-Newnham Regis, by Walter Bailey, London, 1582. He was Physic-Professor in the University of Oxford.—(*r*) Speed's British Empire, fol. 53. Sir John Floyer's History of Cold Bathing, p. 21.—(*s*) Chauncey's History of Hertfordshire, p. 6.—(*t*) Allen's Natural History of the chalybeate and purging Waters in England, p. 174.—(*u*) Additions to Camden's Britannia.—(*w*) Short's History of Mineral Waters, p. 54, 55. Leigh's Natural History of Lancashire and Cheshire, p. 45.

stone, and scurvy; as also in the jaundice, and quartan agues; and are looked upon as a certain remedy for worms (x). Scarborough Spa, in Yorkshire (y), is so well known, so much esteemed, and has already exercised so many able pens in displaying its virtues, that barely to mention it is all that comes within my design (z). Stoke, or Jessop's Well, is a very remarkable spring, not long since discovered, in Stoke Common, about three miles from Claremont, in the county of Surry (·). It is considered as a nitrous purging water, and superior to any other of the kind, that has been discovered in this part of the world.

IN a field lying east from the Green at Streatham, another village in the same county of Surry, medicinal springs were discovered near a century ago, though they were not drank before 1670 (b). At that time they were judged more purgative than Epsom waters: they were long, and are still, in great repute; but in these things humour, and the reigning whim, do more than reason or observation. Experience has shewn, that these waters are very efficacious in destroying worms, and may therefore not be improper in cases where people are much emaciated, without the symptoms that commonly attend a consumption; they are also much esteemed for strengthening the eye-sight. I call them springs, for there were originally three, and the middle one wrought as an emetic (c). In those that are commonly called Sun Tavern Fields, on the other side the Tower of London, in the county of Middlesex, there is a mineral spring of a very singular kind, which, from its lying in the parish of St. Paul's, Shadwell, is commonly called Shadwell Water (d). It is very powerful in outward applications, in the cure of most cutaneous distempers, being both outwardly and inwardly used; has been thought a specific for the scurvy, and even for the leprosy. It became famous, at first, from its being found a sovereign remedy for some sorts of sore eyes; and its other qualities were gradually made evident, partly by experience, and partly from the observation and sagacity of some learned physicians. It is supposed to derive these virtues from its running through a bed of Pyrites (e). Near Thor, Thowr, or, as it is commonly called, Kirkby Thowr, a town three miles from Appleby, in Westmoreland, there are two fine springs of a mild chalybeate water, not inferior to many that are at present in high esteem;

(x) Leigh's *Tentam. de Fontibus medicatis in Agro Lancastr.* p. 123.—(y) Allen's *Natural History of chalybeate and purging Waters in England*, p. 151—157. Short's *History of Mineral Waters*, p. 112—195.—(z) Doctors Witty, Simpson, Highmore, Tonstall, Foot, &c. Shaw's *Inquiry into the Contents, Virtues, &c. of Scarborough Spa Waters*, p. 87—166.—(a) Doctor Stephen Hales's *Examination of the Strength of several purging Waters, especially Jessop's Well*, in the *Philosophical Transactions*, N°. cccxcv. p. 446.—(b) Aubrey's *History and Antiquities of Surry*, vol. i. p. 215.—(c) Allen's *Natural History of chalybeate and purging Waters in England*, p. 151—157.—(d) Maitland's *History of London*, p. 783.—(e) Hoffman's *Treatise upon Mineral Waters*, by Doctor Shaw, p. 102, in the Notes.

and if there were conveniencies for drinking them, probably these waters would be found very beneficial in scorbutic cases; and, as the place is pleasant, the air wholesome, and provisions cheap, one would think such necessary improvements might be easily made (*f*). On the top of a hill, near a farm house at West Tilbury in Essex, there rises a celebrated spring, which some have thought little, if at all, inferior to the German Pouchon water (*g*). It has a very soft agreeable taste, as if it was mixed with milk. It has been found of great service in the gravel, asthma, and some kind of scurvies, and is considered as a specific in diarrhœa's, dysenteries, and the piles (*h*). The waters of Tunbridge, like those of Epsom and Scarborough, are too well known to need any commendation, and yet could not be omitted in our catalogue (*i*).

UPMINSTER, near Horn Church, in Essex, affords us a spring of some singular, as well as salutary qualities, which in obstinate agues and dropries (the common diseases of this county) are very efficacious; and the salt of these waters may, in any proper liquor, be taken at a distance, with as much benefit as the waters at the spring; which is a circumstance of consequence, and ought to recommend them (*k*). In Derbyshire, at Westwood, there is a spring, which is represented as very nearly resembling the Sun Tavern Fields, or Shadwell water, and healing, chiefly by outward application, the foulest and most stubborn ulcers, and this too in a surprizing short space of time, and when other methods, and other mineral waters also, have proved altogether ineffectual (*l*). In Staffordshire, than which no country is better watered, there are several medicinal springs, and those likewise of different kinds; amongst which there is a very famous one at Willowbridge, that has done extraordinary cures in the most deplorable cases, such as rickets, distorted limbs, lamenesses, hectic and consumptive habits; and yet, upon the strictest examination, nothing of a mineral substance has been discovered (*m*). These waters therefore, as well as some others, maintain their title to healing rather by prescription than physical evidence; and yet this ought not to turn to their prejudice with the learned or the unlearned. Not with the former, because they know, better than others, that many facts are incontestible, of which human wisdom can give none, or but a very imperfect account; nor with the unlearned, since the evidence of cures actually done, as to the authenticity of which they are competent judges, is more to be relied upon than physical rea-

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AT the distance of less than a mile from Witham, in Essex, in the direct road from London to Harwich, there is a fine chalybeate spring, which was discovered above threescore years ago, and for some time was much resorted to, and in high esteem (*o*). By the want of skill, however, in those who undertook to secure, adorn, and improve it, such a quantity of common water was mixed with the mineral, as in a great measure defeated its operations, and very naturally destroyed its reputation. But, about twenty years ago the true spring was sought out, restored, and defended against all future accidents; in consequence of which it has justly recovered its credit. When drank upon the spot (for its spirit is too fine to bear carriage) it is equally pleasant and powerful; very diuretic; restores lost appetite; removes indigestions; is of very great service in agues, in the jaundice, and in the beginning of dropsies; in most scorbutic, and in some asthmatic cases. But it is chiefly celebrated for removing hectic fevers, and restoring the strength and spirits of persons, even in the lowest condition, when weakened and reduced by long illnesses. We have a most ingenious and judicious account of this spa, written by one of the faculty, in a manner capable of satisfying the severest inquirer, and in a style perspicuous to every reader (*p*).

WITHERSLACK SPA lies in that corner of Westmoreland which borders upon Lancashire, about eight miles from Kendal, and rises at the foot of a limestone and ironstone rock (*q*). It was discovered about a century ago, and has maintained its reputation by repeated cures in consumptions, jaundice, dropsies, gravel, and stone. But its peculiar excellencies are, the healing the most stubborn ulcers by inward and outward application, and destroying worms. This, like the Witham Spa, is not to be depended upon, unless drank upon the spot; which, if that would invite people to make this a place of amusement and resort, has all the advantages of a wholesome air, a pleasant romantic situation, and, in its neighbourhood, a cheap and plentiful country.

THERE seems to be as much reason to expect variety of salutary and mineral waters in Wales, as in any part of the British dominions. The situation is in every aspect favourable, as re-

(*n*) Harrison's Description of Britain, chap. xxi. Sir John Flover of Cold Bathing, p. 7, 65, 85.—(*o*) Allen's Natural History of chalybeate and purging Waters of England, p. 19.—(*p*) An Essay upon the Witham Spa, by James Taverner, M. B. London, 1737, 8°.—(*q*) Leigh's Natural History of Lancashire, Cheshire, &c. p. 36. Short's History of Mineral Waters, P. ii. p. 55.

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THERE seems to be as much reason to expect variety of salutary and mineral waters in Wales, as in any part of the British dominions. The situation is in every aspect favourable, as re-

(*n*) Harrison's Description of Britain, chap. xxi. Sir John Floyer of Cold Bathing, p. 7, 65, 85.—(*o*) Allen's Natural History of chalybeate and purging Waters of England, p. 19.—(*p*) An Essay upon the Witham Spa, by James Taverner, M. B. London, 1737, 8°.—(*q*) Leigh's Natural History of Lancashire, Cheshire, &c. p. 36. Short's History of Mineral Waters, P. ii. p. 55.

sembling those countries, Swisserland especially, where such springs are found in the greatest plenty (*r*). The soil and disposition of the earth is extremely diversified, and produces abundance of medicinal and vulnerary plants. There are mines in different parts, and of different metals; as also of coals, which are the surest indications in other places, and therefore the less likely to deceive or mislead us here. Yet, notwithstanding all this, it must be acknowledged, that the wide extent of this principality considered, very few of these salubrious springs have been actually found; and most of those that have been discovered, have gradually sunk in esteem, and are at this time in a great measure neglected (*s*). The principal cause of their being so little sought, and so soon abandoned, seems to be the healthiness of Wales in general, joined to the simple manner of living which prevails amongst its inhabitants; and we know, that, as the whole need not a physician, so the sound seldom search for remedies. Another reason may be, that persons of great families and estates spend much of their time at London, which, when their health requires it, facilitates their being sent to Epsom, Tunbridge, or Bath; so that whatever medicinal springs are by chance, that is, by remarkable cures, brought into some degree of knowledge, being frequented only by ordinary people, very seldom rise into high reputation (*t*). But, possibly, if we put health a little out of the question, it would not be either time or pains lost, to search for medicinal waters in this noble principality; as they might, judiciously managed, be rendered serviceable in retaining the gentry in their own country, promoting society amongst the politest and best educated part of a people, distinguished by their natural endowments, and, by degrees, perhaps, attract company from the bordering counties, in order to share not only the benefits of the waters, but in the conversation and amusements of those who frequented them; which would be in many respects beneficial to the country, as well as to the inhabitants.

THERE are, however, even at present, instances enough to encourage such a search. A very good chalybeate spring has been found in the garden belonging to the episcopal palace of Bangor, in Carnarvonshire (*u*); and by the way, this is a county where, in all probability, many such waters might be easily discovered, and it may be, some of a very different nature, since many fragments of Roman baths have been found here (which, though commonly artificial, were also sometimes improvements of naturally warm springs), as also some vestiges of a copper mine, wrought by the same people (*w*). At Caergyfle, in

(*r*) *Itinera per Helvetiae Alpinae Regiones facta ab A. D. 1700 ad 1711*, a Joanne Scheutzero, Lugd. Batav. 1725, 4°.—(*s*) See the last Edition of Camden's *Britannia*, with the Additions; Doctor Childrey's *Britannia Baconica*; and other Works of this Nature.—(*t*) Short's *History of Mineral Waters*, P. ii. p. 86, 87.—(*u*) Appendix to the Account of Llandrindod Waters.—(*w*) Camdeni *Britannia*, p. 535. Additions to the English Translation of the *Britannia*.

Flintshire, about twelve miles from Chester, there are two salt springs, one of which is in great credit for curing obstinate scurvies, and even leprosy, by drinking the water, and washing with it (*x*). About half a century ago there was a project of erecting a salt work here; but, upon boring, some fresh water springs broke into the well, which ruined all their hopes (*y*). It is however, likely, that there might be formerly brine springs discovered in Flintshire, since there are two villages (*z*), one called Over, and the other Nether Droitwich, which seem to me to point out some such thing. Llandrindod, in the county of Radnor, twenty-five miles from Aberystwith (the nearest sea port) in Cardiganhire, thirty miles from Shrewsbury, and twenty-four from Hereford, is of late years become famous for several chalybeate and other springs, which have done extraordinary cures in a variety of chronic distempers, of which the public has lately received a very copious account (*a*). At Llanwrst, in Denbighshire, there is a spring, which the country people have found by experience to have very salutary effects in scrophulous and scorbutic cases; and if some accounts that have been given of it be true (*b*), it certainly deserves to be more carefully examined, when perhaps it will be found of a very singular nature (*c*).

IN the road, about a quarter of a mile south of Rhuthyn, in the same county, in the way to Denbigh, which is about five miles farther, there is a very fine medicinal spring, called St. Peter's well (*d*), which, at the recommendation of Doctor Fowkes, an eminent physician at that place, was secured by a wall built round it, and a basin placed to receive the water. But these are of late said to be decayed, and the spring disregarded (*e*); though there cannot be, if we consider the natural beauties of the situation, the neatness of the town, and the cheapness of the country adjacent, a more commodious place than this for the reception of such as might be inclined to make a trial of the virtues of these waters. On Trocellyne hill, (or Tryfylwin hills, for there are two of that name) in the north part of the island of Anglesey, there rises a medicinal spring, the waters of which have a very pleasing acidity, and are found to be of great service in agues, in dropsies, at the beginning of consumptions, and also in the jaundice (*f*). At Swanzy, in Glamorganshire, mineral waters have been discovered, which resemble those at Shadwell, and have done great cures in palsies, rheumatisms, and consumptions, but are particularly remarkable

(*x*) Short's History of Mineral Waters, P. ii. p. 86, 87.—(*y*) Doctor Thomas Tyllstone's Account of the Springs at Caer Gyrle.—(*z*) Speed's British Empire, fol. 122.—(*a*) A Treatise of the three medicinal Mineral Waters at Llandrindod, by Dr. Weiffel Linden, M. D. London, 1756, 8^{vo}.—(*b*) Sir John Floyer's History of Cold Bathing, p. 85.—(*c*) See the Appendix to the Account of Llandrindod Waters.—(*d*) From particular information.—(*e*) Probably by an irruption of common water, the spring is for the present spoiled.—(*f*) Speed's British Empire, fol. 125. Appendix to the Account of Llandrindod Waters.

for restraining hæmorrhages, and stopping fluxes of all kinds; which have drawn to them a concourse of people, and are likely to maintain their credit (*g*).

THESE, as before observed, are enough to encourage a search for more of such salutary waters in a country which, from its exterior appearance, promises as many, and of as different natures, as any of the same compass in Europe. These, when discovered, and their virtues duly examined and authentically established, for which we want not as learned physicians, and as able chemists, as are any-where to be found, might very easily substitute a journey into Wales, instead of voyages to Germany, France, Italy, or Portugal, with much benefit to health, and (which at this juncture merits some attention) a great saving to the nation (*b*). The very search also would be unquestionably recompensed with the bringing to light a variety of mineral and other treasures, which have long lain neglected, and may otherwise never be revealed. A spring or bath of established reputation, would speedily draw a resort of people; the providing conveniences for them, would immediately form a village, which would rise, in the space of a few years, into a town; occasion the inhabiting and cultivation of the adjacent country; promote neighbouring manufactures; produce the repairing old, and opening new roads; enlarge the correspondence, and quicken the circulation in all the adjoining counties; and excite new branches of industry, by the prospect of rewards unknown before, so as to facilitate exceedingly those improvements, which the public-spirited gentlemen in this part of Britain, to their immortal honour, are so much disposed to encourage (*i*). Thus much I thought it requisite to say, in order to shew how essentially this subject is connected with my plan, and how easily and certainly the natural bounties bestowed by Providence, may, by a little care and attention, be converted into political advantages. I freely acknowledge, or rather am proud to own, I borrowed this doctrine from the wise Lord Bacon (*k*); and I have opened it the more fully here, that I may not be obliged to apply the same kind of reasoning, as otherwise I must be constrained to do, upon many subsequent occasions.

WE are next to proceed to another instance of the kindness of Providence, nearly allied to the former, by which I mean baths; and, in respect to these, it will be found, upon a very cursory survey, we are in Britain not at all deficient; and the number might, without question, as our late discoveries, in comparison

(*g*) From particular information — (*b*) Consider the sums spent by the English at Aix la Chapelle, Schwalbach, Spa, Pyrmont, Montpellier, Naples, Lisbon, &c. as also the advantages which these places draw from the high reputation of their baths, springs, and air. — (*i*) From the information of several persons of worth, and especially the Right Reverend and Honourable Doctor Robert Drummond, the present worthy Bishop of St. Asaph. — (*k*) See his Specimen of the Persian Magic: his Sapiientia Veterum; several Parts of his great Work, de Augmentis Scientiarum, and other Pieces.

of those formerly known, manifestly prove, be, with a little inquiry, greatly augmented. The use of water in cleansing and purifying the body, in a natural; and, metaphorically, in a religious sense; was very early practised in all, as well barbarous as civilized nations; and it is highly likely that from hence they came, by experience and observation, (the eyes of human science) to discern its great utility in medicine. At least this is the plain and probable account of the thing; for as bathing has evident and constant effects upon the human body, so, where-ever this was commonly the custom, as amongst the remotest of the northern nations it still is, these effects were most likely to be observed. In this therefore I agree with a learned and judicious physician (*l*), that the use of cold baths, more especially in northern countries, is to be ascribed to natural good sense, for many reasons, and particularly these three. Cold bathing, or immersion in cold water, is the best preservative against the sense of cold, and consequently of eminent service to the naked Britons, in defending them from the rigour of the climate. Cold bathing affords a certain and immediate relief from weariness, which must have recommended it to people continually in action. The third is a consequence from the other two, the universality of this practice amongst those nations who have scarce any other lights than such as they derive from nature and experience (*m*). Learned men, and more especially learned physicians, in succeeding times speculated upon this, as well as other customs; and explaining the causes of those effects which at first introduced the practice, made that a subject of science, and an instrument in medicine, which had been before used at random, and of course with less certainty and benefit; that is, in regard to the cure, or prevention of diseases, for even to this common sense had directed men, as well as to the ordinary use of immersions for the sake of pleasure or conveniency.

THE great father of physic, Hippocrates, well understood the use of cold baths; and on this, as well as all other subjects, has written very amply, as well as very judiciously (*n*). They were also known and highly esteemed by the Romans. Antonius Musa cured Augustus by this method, for which he was munificently rewarded by the senate, and his statue, at the public expence, placed next to that of Esculapius (*o*). The Emperor Alexander Severus, who lived to old age, used them frequently, or rather constantly (*p*); and as he resided long in this island, his example probably recommended them to the Britons, who by this time were become a very polished people, affected

(*l*) Sir John Floyer's History of Cold Bathing, p. 84.—(*m*) Doctor Giles Fletcher's Observations on the Manners of the Russians. Olearius, in his Embassy, p. 96. Ellis's Voyage to Hudson's Bay, p. 123.—(*n*) See his Doctrine largely stated from his several Treatises, by Sir John Floyer, in his Letter to Doctor Gibbons.—(*o*) Sueton in Augusto, cap. 59, 81. Dion. Caes. lib. lxxv. p. 517. Plin. Hist. Nat. lib. xxxv.—(*p*) Lampid. in Alex. Sever.

the Roman manners; and practised, on a very different principle, what, in earlier times, had been in daily use among their ruder ancestors. It was also common in the days of the Saxons, who very probably had been accustomed to it in their own country (*q*). In process of time, religion came to have a share in this usage; and those places in which the first preachers of christianity to that nation, who in the next ages were all canonized, had commonly baptized their converts, were supposed to have a certain degree of sanctity, and were from thence stiled Holy Wells (*r*); of which there are many in all the three kingdoms. The monks improved upon this, and, in their fictitious legends, attributed miraculous properties to certain springs, in some of which perhaps they had distinguished medicinal virtues (*s*). A very learned prelate, who had long studied this subject, wrote a discourse upon it, which no doubt would have given great satisfaction had it been published (*t*).

At the reformation, as if all things introduced, or commended by papists, were infected with popery, the use of these wells was unaccountably run down (*u*), till men's minds being settled by degrees, reason again recommended what had been discredited by superstition; for undoubtedly there was no less folly in refusing to make use of springs and baths, because their virtues were attributed to false causes by divines, than to decline their assistance because physicians disagree about their contents. The all-wise Creator has given us waters for drink and for physic; and it is an act of religion to point out and preserve the memory of these blessings (*w*). On the whole, we may, with great propriety, distinguish cold baths into three classes. The first is, rivers rendered moderately warm by the rays of the sun. The second, common water, moderately cold, in which the whole body is bathed, or particular parts of it washed; and in regard to these we have already made it evident, that no country can be better supplied than Britain. The third are frigid springs, impregnated with some cold mineral, and these are, strictly speaking, what is meant by cold baths, of which we have many, very justly esteemed for their salubrious effects (*x*).

WE might, to cut this matter short, assert, that at least every spring remarkably cold, may be accounted very properly a cold bath. But to speak more particularly, many of our mineral springs are, in this respect, peculiarly adapted to medicinal purposes. Such, for example, as are stiled vitriolic waters, of which there are some in almost every county. Brine springs,

(*q*) Camdeni Britannia, p. 96.—(*r*) Bedæ Hist. lib. ii, iii, iv.—(*s*) Concilia Magnæ Britannia, vol. i. p. 389. Plot's Natural History of Oxfordshire, chap. ii. §. 70. Hearn's Preface to Robert of Gloucester, p. xlvii.—(*t*) Doctor William Fleetwood, first Bishop of St. Asaph, then of Ely, in his Address to the Reader, before the Life of St. Wenefrede, p. 18, mentions a Discourse of the Superstition of Waters, which he had written, and intended to publish.—(*u*) Harrison's Description of Britain, chap. xxi.—(*w*) Philosophical Transactions, N^o. li.—(*x*) Sir John Floyer's History of Cold Bathing, p. 91.

and sea water, are likewise useful; and bathing in them has been recommended by the most able physicians (*y*). The tinnerns in Cornwall observe, that the water which runs from Mundick ore, cures any wounds, cuts, or sores surprizingly (*z*). Nitrous purging waters, and smooth oily bituminous waters, effect great cures by bathing. Alabaster waters, marle waters, and such as run through chalk and limestone, heal ulcers, and are in other respects highly salutary (*a*). We will next mention some of the many cold baths in England, that have experience, as well as reason, on their side; and though perhaps discovered by chance, and brought into credit by accidental cures (*b*), are now known and acknowledged, from a strict examination of their contents, to be exceedingly powerful, as well as the cheapest remedies, in many of the most grievous distempers to which the bodies of men are subject, and therefore cannot be too much commended (*c*).

At Askeron, five miles from Doncaster, and seven from Pontefract, in Yorkshire (*d*), there is a sulphur spring, which is now inclosed, and falls into a fine basin. It rises within a few yards of a pool, the soil on one side of which is limestone, and on the other a white clay, lying upon white sand. This pool is never dry, nor ever overflows. The virtues of the water were first discovered by farriers and farmers, who drove their horses and cattle thither in the most stubborn maladies, and this with all imaginable success; and these waters are now famous for curing the most inveterate strumous sores by bathing. Croft spa, in the same county, upon the edge of the bishoprick of Durham (*e*), springing through limestone, is no less remarkable for the same properties, and, by drinking and bathing, cures most cutaneous distempers. Near Coleshil (*f*), in Warwickshire, there is an excellent cold bath, which has done wonders even in leprous cases. Holy Well (*g*), near Hinckley, in Leicestershire, is likewise famous in cases of the same nature. At Hunwick, near Bishops Auckland, in the bishoprick of Durham (*b*), there is an excellent cold spring, to which people resort commonly in the months of June and July with their children, from its efficacy in curing the rickets. Kedleston, in Derbyshire (*i*), in the midst of Sir Nathaniel Curzon's park, furnishes an admirable cold bath, from the spring that has been before-mentioned, which, by drinking and bathing, cures weakness of the joints, fixed and wandering pains, swellings, lameness, and even

(*y*) Dissertation concerning the Use of Sea Water in Diseases of the Glands, &c. by Doctor Russell, 1754, 8°.—(*z*) Additions to Camden's Britannia.—(*a*) Sir John Floyer's History of Cold Bathing, p. 21.—(*b*) Short's History of Mineral Waters, P. i. — (*c*) Leigh, de Balneis frigidis. — (*d*) Short's History of Mineral Waters, P. i. p. 303.—(*e*) Speed's British Empire, fol. 32. Short's History of Mineral Waters, p. i. p. 299.—(*f*) Sir John Floyer's History of Cold Bathing, p. 21.—(*g*) Burton's Description of Leicestershire, p. 134, 135. Sir John Floyer's History of Cold Bathing, p. 22.—(*h*) Mr. Ellison's Account of this, in a Letter to Sir John Floyer.—(*i*) Short's History of Mineral Waters, P. i. p. 297.

the king's evil. St. Mongah's well (*k*) is one of those, at Knaresborough, in Yorkshire, celebrated for above a century for curing old aches, swellings, hard tumours, agues, and many other distempers. Newnham Regis, in Warwickshire, already mentioned (*l*), is also considered with good reason in the same light. At Newton Dale (*m*), nine miles from Whitby, in Yorkshire, there is a petrifying cold spring, which cures hæmorrhages of every kind, weak joints, and even distorted limbs, if used at the beginning. Near Tutbury (*n*), in Staffordshire, there was formerly a cold spring in great reputation; another at Walsall; and a third at Willowbridge, in the same county, which has done prodigious cures by drinking and bathing; as to which, if the reader will consult the treatises mentioned at the bottom of the page (*o*), or any person well acquainted with that county, he will learn much more than is proper to be inserted here.

IN Wales they have, in Flintshire, one of the most famous, and it may be, one of the most singular cold baths in this island, near a little town, which from hence is called Holy Well (*p*). As to the legend of St. Wenefrede, it is more than enough to discredit it, that Girald, who seldom misses either a miraculous well, or an extraordinary story, when they come in, or lie but a little out of the way, should yet be silent as to both; and this too, though he passed a night at a religious house near the place. But, besides his, there is also as deep a silence amongst all our ancient historians (*q*). There is, however, a chapel dedicated to this St. Wenefrede, hewn out of the solid rock, and very neatly adorned, that stands over the spring, which rises with great force, and runs afterwards with such rapidity as to turn a mill (*r*). It is from various circumstances probable, that this is not so properly a fountain, as a subterraneous current, diverted hither by miners in working the rocky hill; and therefore Giraldus Cambrensis, though he says not one word of either saint or well, helps us to a good account of the surprizing coldness of the bath, by telling us a silver mine had been wrought, or sought for, thereabouts (*s*); and possibly this might be no more than a lead mine, and these no other than the waters issuing from thence, at what the workmen call a swallow (*t*). Be that as it will, the name of Holy Well is ancients than that of St. Wenefrede, and might very naturally induce the monks of Basing-

(*k*) Leigh's Natural History of Lancashire, Cheshire, &c. b. i. p. 54.—(*l*) See p. 82. Dugdale's Antiquities of Waawickshire, p. 101. Sir John Floyer's History of Cold Bathing, p. 21.—(*m*) Short's History of Mineral Waters, P. i. p. 297.—(*n*) From private information.—(*o*) Doctor Plot's Natural History of Staffordshire. Sir John Floyer's History of Cold Bathing, p. 21, 115. Short's History of Mineral Waters, P. ii. p. 83.—(*p*) Speed's British Empire, fol. 121.—(*q*) Such as Bede, William of Malmesbury, H. Huntingdon, Florence of Worcester, Roger Hoveden, Walter Hemingsford, Mathew Paris, &c.—(*r*) Brome's Travels over England, Scotland, and Wales, p. 237.—(*s*) Itinerar. Cambriæ, lib. ii. cap. 10.—(*t*) Additions to Camden's Britannia.

werk, to whom, by that name, it had been granted, to frame the legend of Wenefrede, and her martyrdom, for their purpose (*u*). Independent of all this, it is an admirable spring, and deserves to be called the first and principal one of its kind, answering all the intentions of a cold bath, curing all the diseases, and relieving all the infirmities, for which cold baths are judiciously prescribed, and, as far as I could obtain any proper information, those only. The virtues of these waters have maintained their reputation against all prejudices; and though, from the discovery and introduction of so many other springs and baths, the concourse of people to Holy Well may not be so great as in times past, yet the resort of persons of both sexes, and of all ranks and ages, is still very considerable, and the superstitious practices used there daily wearing out (*w*). Indeed the frequenting this place merely as a medicinal cold bath, by protestants, is a very prudent thing, and must in every light in which it can be considered, appear highly right; since nothing could be more absurd than that we should preclude ourselves God's gifts, because they are, or have been heretofore, misrepresented, or abused, by men.

It is certain, that, formerly, the spring at Rhuthyn was in great reputation, as a bath, as well as a mineral spring; and, very probably, the greatest cures here, as well as in other places, were performed by drinking and bathing (*x*). I must once more take the liberty of observing, that this place stands upon the beautiful river Klwyd, at the very entrance of Dyffryn Klwyd, Strath Cluid, or, as we call it, the vale of Clwyd, the paradise of Wales, which is highly commended by Camden (who made a journey on purpose to see it) for the pleasantness of its situation, the verdure of its meadows, the fertility of its corn fields, and the many agreeable prospects on all sides (*y*). One would therefore be tempted to hope that, upon trial, the credit of its bath and waters might be restored, as no place can lie more commodiously than this, for the reception of strangers, or, consequently, for such a purpose. It is evident the Holy Well has raised and supported an agreeable market town in Flintshire; and though it be true that Rhuthyn is already in a very thriving condition, yet there seems to be no reason to slight so easy, and which, in process of time, may prove so considerable an improvement in Denbighshire. The same thing may be said of the mineral waters at Swanzy, which, from the accounts we have received, seem no less proper for bathing than drinking; and would probably succeed still better, if used both ways; which may equally contribute to expedite, and, in very obstinate cases, to confirm the cure.

(*u*) See Doctor Powell's learned Notes on Girald Cambrensis; and Bishop Fleetwood's Preface to the Life of St. Wenefrede.—(*w*) Additions to Camden's Britannia.—(*x*) Sir John Floyer's History of Cold Bathing.—(*y*) Camdeni Britannia, p. 547.

SOME critical reader may perhaps object, that in bringing this subject within the compass of my design, and insisting so strongly on the political purposes that may be served from the settled reputation of medicinal springs, I make it too much a work of art, and thereby afford encouragement to practices, which already but too frequently prevail, of giving an air of importance to things in themselves of little consequence, by specious recommendations. But I answer clearly, that, than this, nothing can be farther from my intention. Opinion is the phantom of a day; truth continues unaltered, and for ever. I am so far from extending, that, in this case, I am for extirpating the dominion of fashion. Let every spring, let every bath, be strictly examined, their contents known, and, as far as human science can investigate them, their qualities assigned, and the cases in which they are proper settled by reason and experiment, with the proper method of using, and the cautions requisite. This once done, events would do all the rest. A series of successful cures would demonstrate the truth; or the want of them quickly destroy all physical representations. Those places where health is to be obtained, would be frequented; the insignificance of all but these would be determined. If it be replied, that I have myself mentioned collateral recommendations; I freely admit, that I am persuaded, in many cases, a pure air, moderate exercise, a temperate regimen, relaxation from business, and chearful conversation, are necessary ingredients towards removing the disorder. If by the junction of these a village can be raised to a town, or a town to a city, the neighbouring country improved, and, by mutually relieving each other's wants, a multitude of people made happy, is not this very good policy? But perhaps it is asked, how long will this last? I dare not say for ever. But if I presently produce an instance of its lasting two thousand years, with historical evidence to prove it, will not this shew that I had an equitable right to the subject, and that my notions are not chimerical?

WE come now to hot baths, of which it must be owned, that there are fewer in Great Britain than in some countries upon the continent. It may be, because we have been less diligent in the search of them; and it may possibly be, because they are less necessary in our climate. For though these must be acknowledged very potent remedies in a variety of stubborn maladies, yet cold baths seem better calculated for the preservation of health, and cold springs the best adapted to the most common diseases. It will however appear hereafter, that we are not altogether defective even in this point; and that, though not many in number, our warm springs are very different in their natures, and have all of them, notwithstanding, very salutary effects. We meddle not with the so much controverted question, whence these waters derive their heat? Whether it be intrinsic, from their passing through mineral beds, or being impregnated with

with the vapours of Pyrites (z); or whether they derive this heat from an extrinsic cause, or subterraneous fire in the bowels of the earth (a)? Very probable arguments have been urged, and great authorities there are on both sides; but we pretend not to decide on which truth lies. It is sufficient for our purpose that the fact is certain, and that we have indubitable proofs that our hot waters have retained their warmth and their virtues through a long course of ages, and that, whatever the cause may be, there are no just grounds to apprehend that their salubrious qualities will ever fail.

THE first of these are the hot springs at Bath, in Somersetshire (b), so well known with respect to their medicinal virtues, and of which such copious accounts have been given by so many learned writers, that it would be beside my purpose to dwell upon so known a subject. Yet a few words perhaps, as to the history of the place, and to shew that these waters have been, since their first discovery, ever famous, may not be amiss. The Britons called this place Yr ennaint Twymin, as Camden informs us (c); but he does not explain their meaning, which is, the warm or hot Bath. It was likewise called *Caer Badon* (d), which is the very name it now bears, that is, the city of Bath. It is said to have been built by Blethin, or Bledin Cloyth, that is, as Bale interprets it, *Bladudus Magus* (e), or *Bladud the Sage*. He is said to have studied at Athens, and to have bestowed perpetual heat upon these waters by art magic (f). This has been rejected as a fable too gross to be believed. It may be so; and yet perhaps Leland, who was no credulous man, might be as much in the right, who thought it meant no more than that he found out the use of these waters, and perhaps guessed at the causes of their warmth (g); at least this may be presumed, from the fragment of an old chronicle, produced by the learned Selden (h). William of Malmesbury is for attributing them to the Romans; and that he might go as high as he could, gives the honour to Julius Cæsar (i): which notion of his Leland treats with contempt (k). That they were known to the Romans, and improved by them, is true; but not surely soon after their coming, since Solinus (l) is the first author who mentions them; and he tells us there were hot springs in Britain, surrounded with

(z) Varenii Geograph. universalis, sect. iv. cap. xvii. prop. 7. M. Lister de Thermis et Fontibus medicatis Angliæ Exercit. 1. cap. ix. Histoire de l'Acad. Royal, A. D. 1700, p. 52. Memoires, p. 101. Plot's Natural History of Staffordshire, chap. iii. sect. 57. p. 144. Hoffman on Mineral Waters, translated by Doctor Shaw, p. 123.—(a) Agricola de Re Metal. p. 31. Kircheri Mundus Subterræ. P. i. lib. v. sect. ii. cap. 6. Derham's Physico-Theology, book ii. chap. 5. Voyages de Tournefort, Lett. 21. p. 189. Colonne Histoire naturelle de l'Univers, P. ii. chap. 5.—(b) Speed's British Empire, fol. 23.—(c) Britannia; p. 170.—(d) Baxteri Glossograph. Antiquit. Britan. p. 32.—(e) De Scriptorib. Britan. p. 10, 11.—(f) Galfred. Monument. Hist. Reg. Britan. lib. ii. c. 10.—(g) De Scriptoribus Britannicis, cap. vi.—(h) In his Commentary on the eighth Song of Drayton's Poly-olbion.—(i) De Pontif. Angl. lib. ii.—(j) Commentar. in Cygnæam Cantionem, p. 34 35.—(l) Polyhistor, cap. xxv.

elegant buildings, and dedicated to Minerva. Hence Camden very ingeniously conjectures, that, upon their being thus adorned and dedicated by the Romans, the Britons gave them the new name of *Caer Palladdur* (*m*), that is, the city of Pallas's Waters; which title, however, Hardinge, in his old chronicle, attributes to Salisbury. Ptolemy calls them, with great propriety, *Therma hudata*, *Aquæ calidæ*, or, the warm waters. In the Itinerary we find them stiled *Aquæ Solis*, or, the Waters of the Sun; and Stephanus calls the city *Badiza*. Bale tells us, that some attributed the heat and virtues of these springs to a miracle wrought by St. David (*n*). It seems that the Romans had fortified Bath in such a manner, that the Britons were not easily dispossessed of it by the Saxons (*o*), who became masters of it Anno Domini 599. They gave it the name of *Acemannes ceaster* (*p*), which Camden and Bishop Gibson both interpret the city of the Valetudinarians. They called it also *Bathancester*, *Hat Bathan*, and *Baddanbyrig*, all referring to its salutary waters (*q*). Beda makes mention of these warm springs, flowing in his days so copiously, as to form a rivulet, as one of the most noble prerogatives of this island (*r*). In so high credit they were with this nation, that in dating charters signed here (*s*), they took notice of its being the place so renowned for its waters.

It suffered severely from the fury of Swane, who, at the head of his Danish army, plundered and burned it (*t*). After the Norman conquest, this city met with some misfortunes in times of public commotion (*u*); but, as soon as these were over, the splendour of Bath began to revive. Her resource could not be removed or injured, as appears by the epigram of Alexander Necham (*w*), who flourished near six hundred years ago, that vast numbers of lame and infirm people crowded thither for, and received, relief; and he likewise hints at the tradition, of these baths being made by art, which he treats as a fable. Gilbertus Anglicus (*x*), who was a physician, and not unlearned for the time in which he lived, which probably might be in the reign of Edward I. commends the sulphureous baths very much, and gives the case of a young man, of a melancholy disposition, and of a broken constitution, who was cured by them. The celebrated Doctor Friend (*y*) was of opinion, that this cure must have been done, not by bathing, but by drinking the waters; a practice which, according to his notion, was revived three hundred years after by Doctor Guidot, or at least with his approba-

(*m*) *Britannia*, p. 170.—(*n*) *Scriptorum Britannicæ, Centuria prima*, fol. 31. In the original edition in quarto, printed at Ipswich, 1548.—(*o*) *Lelandi Collectanea*, tom. ii. p. 277.—(*p*) *Chronicon Saxonicum*, p. 35, 121.—(*q*) *Lamblard's Topographical Dictionary of Britain*, p. 22.—(*r*) *Ecclesiasticæ Historia Gentis Anglorum*, lib. i. cap. 1.—(*s*) *Hemingi Chartularium Ecclesiæ Wigornienfis*, p. 64, 108.—(*t*) *Langtoff's Chronicle*, p. 43.—(*u*) *Gibsoni Chronicon Saxonicum*, p. 193. *Lelandi Collectanea*, tom. ii. p. 318.—(*w*) *Camdeni Britannia*, p. 171.—(*x*) *Compendium Medicinæ*, p. 250.—(*y*) *History of Physic*, vol. ii. p. 271.

tion. Robert of Gloucester (z), in his old rhyming chronicle, makes Bath Waters the first of the three wonders in England; Stonehenge, and the Peak of Derby, being the other two. We find a very particular account of the city and the baths, as they stood in his time, in the works of our indefatigable and accurate antiquary, John Leland (a): every writer of any note, who has touched our history, or mentioned the singularities of this island, believing it his duty to celebrate these salutary streams. The nature of their contents; their medicinal qualities; the proper method of using them; the seasons for coming hither; the diseases in which they are successful; the manner of applying them by bathing, drinking, or pumping; the cases in which reason and experience shew them to be improper; and, in a word, whatever else the most curious inquirer could contrive to ask about them, may be found in the very numerous pieces the learned have written on the subject of these famous baths (b), still in as high credit as ever. As to any other particulars which regard the history of the place, and may tend to support and establish what I have advanced, in respect to the numerous advantages flowing to the inhabitants from the high and just reputation of these waters, it would not be difficult to assemble a cloud of witnesses (c).

WE have mentioned several of the mineral fountains a second time, in speaking of cold baths; and we must do the same in regard to Bristol Hot Well, now we are treating of warm waters. The warm spring at St. Vincent's Rock was taken notice of about the beginning of the last century (d), and at that time was covered with the sea at every high tide: the spring, notwithstanding, preserved its heat and its virtues. At first it was a popular medicine for sore eyes; by which I mean that use and experience recommended it to the common people, who soon extended it to scorbutic and scrophulous diseases with equal success. We must observe, that in these cases they washed; and, in process of time, both washed with, and drank the waters, which they found equally salutary and pleasant; qualities perhaps no where so thoroughly united. Doctor Venner published their fame to the world (e); and when they came to be examined by the learned, their virtues were acknowledged, their effects particularly explained, and highly commended. Some inclined to think, that except their being less hot, they differed not in kind from Bath waters. But experience, and the farther consideration which it produced, quickly proved this was a mistake; and in-

(z) In his Introduction, vol. i. p. 7.—(a) Itinerary, vol. ii. p. 35—40. vol. vii. p. 74.—(b) The Baths of Bath, by Doctor Thomas Venner, London, 1637, 4°. Mayo, Guidot, Wynter, Pierce, &c.—(c) Stukeley's Itinerarium Curiosum, p. 138. Salmon's Survey of England, vol. ii. p. 804—811. An Essay towards a History of Bath, by John Wood, Architect, London, 1749, 2 vol. 8vo.—(d) Childey's Britannia Baconica, p. 36.—(e) Censure concerning the Waters at St. Vincent's Rock, near Bristol, at the end of his Baths of Bath.

deed it is now known and confessed, that Bristol waters succeed best in those cases for which the waters of Bath are found prejudicial; and for this reason, since the operations of those waters have been more attentively considered, disused (*f*). In scorbutic cases their happy effects are undeniable; all excoriations in the dysentery, with ulcers in the intestines, kidneys, and bladder, they heal beyond expectation, almost beyond credit; they check all immoderate secretion in such a manner, and with so great safety, that some regard this as the characteristic of Bristol waters; in all hæmorrhages they are admirable; in the strangury, gravel, and stone, they do all that can be expected; and even in scrophulous cases they are very successful. In coughs, nay, and in consumptions of the lungs, cures have been effected by these waters, when all medicines failed; and the same is also said in regard to cancerous sores. But in the two last cases more especially, the persons affected should be sent as early as possible, before the disease has been irritated, or the strength weakened by other methods (*g*). These are usually stiled the Hot Wells, because, beside St. Vincent's, there has been another warm spring discovered about a mile lower, on the same side the Avon. It may be, upon a strict examination of, and a close attention to their effects, greater difference in their qualities may be discovered than even the learned are at present willing to allow. As in the neighbourhood of these salutiferous springs the air is excellent, the country pleasant, and all kind of accommodations to be had with ease, we cannot wonder at the great resort of people of all ranks hither in the summer, which is the proper, or rather the usual season; but in cases of necessity, there is no doubt, they may be safely and successfully used at any time (*b*).

BUXTON Baths, in Derbyshire, near the river We, lie ten miles from Chatsworth, sixteen from Chesterfield, and twenty from Derby, in the wildest part of the country, which derives its name from the Peak (*i*). It was always believed, by our antiquaries, that these baths were known to, and much frequented by, the Romans, because of a military way, called the Bath Gate, from Burgh to this place, which is still visible (*k*). This conjecture was verified about fifty years ago, when Sir Thomas Delves, of Cheshire, in memory of a cure he received here, caused an arch to be erected; in digging the foundation for which, they came to the remains of a solid and magnificent structure of Roman workmanship; and in other places in the neighbourhood very capacious leaden cisterns, and a variety of other utensils, which evidently appear to be also of Roman workmanship, have been discovered (*l*). That these baths were

(*f*) See the modern Writers upon both Waters.—(*g*) Wynter's Essay on chro-
nical Diseases, p. 41, 42, 54, 55. Randolph, Baynard, Owen, &c.—(*h*) From
particular information.—(*i*) Lambarde's Topographical Dictionary, p. 48. Speed's
British Empire, fol. 67.—(*k*) Camdeni Britannia, p. 421. Stukeley's Itinerarium
Curiosum, p. 52, 53. Salmon's Survey of England, vol. ii. p. 543.—(*l*) Short's
History of Mineral Waters, P. i. p. 23—70.

less famous than those in Somersetshire, must be admitted; but that they were ever totally disused, there is some reason to doubt. They are mentioned by Leland (*m*), as well known two hundred years ago; but it is certain they were brought into higher credit by Doctor Jones's book (*n*), and by George Earl of Shrewsbury's erecting a building over the bath, then composed of nine springs (*o*). This building was afterwards pulled down, and a new and more commodious edifice erected by the earl of Devonshire. Yet, in receiving this favour, the baths of Buxton suffered no small detriment, by the loss of the ancient register of cures, drawn up by the Bath-warden, or physician attending the baths, and subscribed by the parties own hands (*p*). A circumstance that deserves to be remembered and revived, not only here, but at every remarkable spring or bath in the kingdom, for reasons so evident, that they need not be enumerated. The baths of Buxton, which are warmer than the hot well at Bristol, are yet in all respects milder than those in Somersetshire; and though of consequence less powerful in some distempers, yet in several others are useful and salutary, both inwardly taken, and outwardly applied, where reason and experiment have taught, that the latter are to be forborne. To give barely a list of the diseases, amongst which rheumatisms, gout, scurvy, cramps, convulsions, contractions, and asthma, are included, which, by the sure test of experience, these springs have been found to cure, would take up too much room (*q*). It is sufficient therefore to say, that the best judges have most highly commended them (*r*); and that, upon the strictest examinations, the esteem of their virtues, instead of being discredited or lessened, hath been not only admitted but increased (*s*).

At the distance of somewhat more than thirty-two yards north-east from the bath at Buxton, rises St. Anne's Well, which is chiefly supplied from a spring on the north side, out of a rock of black limestone, or bastard marble (*t*). It formerly rose into a stone basin, shut up within an ancient Roman brick wall, a yard square within, and a yard high on three sides, open on the

(*m*) Commentarii in Cygneam Cantionem, p. 35. Itinerary, vol. vii. P. i. p. 45. —(*n*) The benefit of the ancient Bathes of Buckstones, which cure most grievous sicknesses, never before published, compiled by John Jones, physician at King's Mead, near Derby, Anno Salutis 1572, London, 4^o. —(*o*) Camdeni Britannia, p. 421. Childrey's Britannia Baconica, p. 112. Brome's Travels over England, Scotland, and Wales, p. 84. —(*p*) Short's History of Mineral Waters, P. i. p. 49. —(*q*) The best way of coming at this would be, as hinted in the text, to revive the register, print the cases every ten years, and engage every person, at their first coming, to purchase the book. This would establish the facts, circulate the reputation of the waters, and prevent any such accidents as that by which the old register was destroyed. —(*r*) Mart. Lister. de Thermis & Fontibus medicatis Angliæ, p. 36. Leigh, book i. p. 31. Allen's History of Mineral Waters, p. 39. See also Mr. J. Martyn's Observations in a Journey to the Peak, in the Philosophical Transactions, N^o. ccccvii. p. 22. —(*s*) See Doctor Baynard's Appendix to the History of Cold Bathing. —(*t*) Lister de Thermis & Fontibus medicatis Angliæ, p. 37. Short's History of Mineral Waters, P. i. p. 39.



fourth; till, in 1709, Sir Thomas Delves erected, as we before observed, an arch over it, which is twelve feet long, and as many broad, set round with stone steps on the inside (*u*). In the middle of this dome the water springs up now into a stone basin two feet square. This water is not so light or so warm as the water in the baths; and yet this may be termed the mother-spring; for here the Romans had erected their noble works, and here was the ancient chapel dedicated to St. Anne, by which Buxton was preserved in reputation (*w*). That the waters of these springs (for there is a small one on the west side, as well as a large one on the north) differ very little in their perceptible qualities from the springs in the baths, those who have examined them with the greatest care, seem to agree; but that they, notwithstanding, differ in their effects, experience has shewn; and of this Sir Thomas Delves's Arch, as a monument of his cure, remains a very remarkable, as well as incontestible, proof.

ABOUT twenty yards south-east of St. Anne's, in another close, lies Bingham, or St. Peter's Well, called also Leigh's Well, from a memorable cure received by a gentleman of that name from this spring, which rises out of a black limestone, in a very dry ground, and is not so warm as St. Anne's Well. In the very same close there are a hot and a cold spring, that flow into the same receptacle; and, at no great distance, there are other small springs of warm water, all of which, if strictly examined, may possibly be found to have very different effects, and be consequently able to answer very different intentions (*x*). These are circumstances of very great consequence in the cure of stubborn chronic diseases; and the concurrence of such a variety of waters within so narrow a compass, when their several qualities shall be once thoroughly understood, may render Buxton as justly famous as any place in Europe, and of course create as great a resort thither; since the medicinal virtues of its waters are only exerted on the spot, where all imaginable conveniences either already are, or might be very easily provided.

ABOUT fourteen miles south from Buxton, ten from Derby, and seventeen from Nottingham, lies Matlock Bath, the last of the warm waters that we shall mention. The waters of Matlock are lighter, but not so warm as those of Buxton (*y*). In its operations, Matlock comes very near to the Bristol waters, and, like them, agrees perfectly with a milk diet. In the scurvy, rheumatism, weakness, and wandering pains, as well as in all cutaneous distempers, it has been found highly beneficial, used

(*u*) Speed's British Empire, fol. 67. Stukeley's Itinerarium Curiosum, p. 52, 53. Short's History of Mineral Waters, P. i. p. 23.—(*w*) Leland's Itinerary, vol. vii. P. i. p. 45. See also Doctor Jones's book before cited.—(*x*) Short's History of Mineral Waters, P. i. p. 44.—(*y*) Additions to Camden's Britannia.

as a bath. When taken internally, as well as used externally, it has done wonders in cancerous sores, and the king's evil; but in respect to bloody urine, and indeed hæmorrhages of every kind, it is held a sovereign remedy. In short, it is the gentlest of all our tepid waters, may be taken in the largest quantity, and, generally speaking, may be used without any previous preparation. We may add to this, that the air is wonderfully pure, the situation remarkably pleasant, and every thing that renders a rural scene agreeable, adorns the prospect. South-west from Matlock, lies Middleton Bath; and about two miles from thence Wirksworth, which has two warm brooks, the one on the east, the other on the west side of the town, which serve as baths, but are not used inwardly. Nine miles from Matlock lies Stony Middleton; and at the foot of a high mountain, on the north side of the town, there rises a fine warm spring, the water of which is drunk with great benefit. Eight yards from thence is the bath, in which there rises as strong a spring as that at Buxton (z), and there are some other warm springs in the neighbourhood, which, in any other country, would be thought worthy of a particular description; but the plenty of such salutary springs, in this part of Derbyshire, occasions these being but little regarded.

If, in treating this subject, I may, as the thing is very possible, have committed any mistakes, expressed myself with any impropriety, or been guilty of any material omission, I hope I shall be excused, from the uprightness of my intention (a). I am persuaded that, in a political, as well as a physical, sense, it would be of the highest importance to have at least the most considerable of these springs examined, and, as far as may be, their nature and contents established by public authority (b). This would be a charity of the most elevated and extensive nature, and productive of numberless good effects, more especially if, by the same authority, a public register of cases and cures was fixed at every spring or bath, the warden sworn into his service, and empowered to administer an oath in cases where he should think it necessary. This, if any thing possibly could, must demolish the dangerous, as well as absurd, dominion of fashion, and put the reputation of these places upon the proper basis of their respective merits. It would secure to the patients a certainty of accommodation upon reasonable terms, and at the same time prove a laudable and indubitable method of raising towns, and drawing inhabitants into those parts of the country, which

(z) Leigh's History of Lancashire, book iii. p. 47. Lister de Fontibus medicatis Angliæ, p. 47. Short's History of Mineral Waters.—(a) It is possible there might have been less ground for this apology, if I had been earlier acquainted with that accurate and most useful performance, An Essay on Waters, in three parts, by Doctor Charles Lucas.—(b) If there be any useful regulations, real improvements, or more convenient accommodations, at any foreign springs or baths than at our own, these too should be adopted.

are at present thinly peopled. In a series of years, the translation of the registers into Latin, under the sanction and approbation of the royal College of Physicians, would diffuse the knowledge of these singular blessings over all Europe, and be instrumental in the noblest of all works, exalting the glory of God, by doing good to his creatures.

THERE are, in some countries, abundance of lakes and standing waters of considerable extent; but in South Britain there are very few, and none of these of any great size. In Huntingdonshire, from the low situation of the country, and near neighbourhood of the fens, we find several; but the most remarkable are five, viz. Brick-meer, Ug-meer, Wittlesey-meer, Ramsey-meer, and Benwick-meer (*c*). Of these Wittlesey-meer is by much the largest; and anciently there was a navigation from Peterborough, by the river, to this meer, and from thence to Ramsey (*d*). But now, since some part of the country is drained, the bounds of these little lakes are very much reduced. It has been observed, that the great plenty of fish in these pools; the luxuriant pastures in their neighbourhood, and the conveniency of cutting turf, have made the inhabitants less industrious in this respect, as affording them a compensation even for the unhealthiness of their situation (*e*). In Cheshire, we likewise find many of these pools, but of no great extent; and amongst the most distinguished are, Bag-meer, Comber-meer, Oakhanger-meer, and Pick-meer (*f*). These are singular in three respects, that a river, or at least a rivulet, runs out of each of them; that they are plentifully stored with excellent fish; and that their banks supply the richest pastures; so that here likewise the inhabitants have no strong temptations to draining (*g*). In Lancashire there were two considerable collections of water of this kind, each known by the name of Martin-meer (*h*). The largest, which was seven miles long, two broad, and eighteen in circumference, was completely drained at the sole charge of Thomas Fleetwood, Esq; and this must have been a work of very great labour and expence, since it is asserted, that he employed more than two thousand persons at once. In all probability it very well answered, since the soil not only proved very rich and fat, but there was likewise found a valuable marle pit, sufficient to supply any manure that might be wanting (*i*). It may not be amiss also to remember, that there were likewise discovered, at the bottom of the Meer, no less than

(*c*) See the Account of this Shire, by the learned Sir Robert Cotton, in Speed's British Empire, fol. 57.—(*d*) Historiola Eliensis, apud Camdeni Britanniam, p. 368.—(*e*) See the Additions to Camden's Britannia, the last edition of the English Translation.—(*f*) Speed's British Empire, fol. 73. Childrey's Britannia Baconica, p. 131.—(*g*) Norden's Description of this County. King's Vale Royal of Cheshire. Sir Peter Leycester's Antiquities of Bucklow Hundred, p. 314, 339.—(*h*) Camdeni Britannia, p. 611, 612.—(*i*) Leigh's Natural History of Lancashire, Cheshire, and Derbyshire, book i. p. 17, 18, 19.

eight canoes, resembling those of the Indians through all North America, which are supposed to have been the vessels of the ancient Britons. But to avoid being deceived by this, it might be proper to enquire whether the use of this kind of boat, upon such inland pieces of water, was not continued long beyond those times (*k*). The other meer of the same name, but lying several miles distant, is about two miles in length, and one in breadth, equally serviceable in furnishing the inhabitants with great plenty both of fish and fowl (*l*).

THE largest, and indeed the most famous of all our lakes, is Winder, or Windal-meer, in Westmoreland, being eleven miles long, and about two broad (*m*). Yet, strictly speaking, this ought not to be reputed a meer, or at least it is not a standing water, since it is only the expansion of a river that issues out of a little lake, called Gres-meer, and having, from the situation of the country, diffused itself to this extent, afterwards runs on into the sea with a full stream, not many miles farther (*n*). Winder-meer abounds with salmon, pike, bass, perch, eels, &c. and it is only in some part of it, where the char is taken, asserted by many to be found no-where else. This delicate fish, which is, generally speaking, about nine inches in length, and in some degree resembles a trout, is thus distinguished: the male, or milting char, has a red belly, but the flesh is generally white. The female, called the roeing char, has a paler belly, but the flesh is of a brighter red, and the fish is commonly larger. The third sort, called gelt char, and frequently, though it may be corruptly, the gilt char, is without roe (*o*). These fish are not to be caught by bait; but feeding in deep water, are taken only in nets. It is, however, affirmed, that there is as fine char in Conington water, formerly called Thurston-meer, in Lancashire, at five miles distance from Winder-meer, as in that meer itself (*p*). There are likewise some waters, as particularly Ulfes or Ulles water, in which there is also char, or a fish that nearly resembles it (*q*), that bear the name of Meers in Cumberland, and in other northern countries; as also many, though but of a small size, in Staffordshire (*r*); but as there is nothing in them very particular, it is not necessary to mention them.

(*k*) The ancient boats, made of willow twigs, covered with leather, called coracles, are still or were very lately, used on the meers in Cheshire.—(*l*) Speed's British Empire, fol. 75.—(*m*) Camdeni Britannia, p. 624, 625.—(*n*) Lambarde's Topographical Dictionary, p. 460 (Windeandermere). Childrey's Britannia Baconica, p. 167. Salmon's Survey of England, p. 635. Brome's Travels over England, Scotland, and Wales, p. 230. But the best Account is in the Gentleman's Magazine, vol. xviii. p. 562, 563.—(*o*) Leigh's Natural History of Lancashire, book i. p. 141. Willoughbeii, Hist. Pisc. p. 197. Hill's Natural History, vol. iii. p. 221, 222.—(*p*) Leigh's Natural History of Lancashire, book i. p. 141.—(*q*) Speed's British Empire, fol. 87. Additions to Camden's Lancashire.—(*r*) See a large Account of these Lakes or Pools in Doctor Plot's Natural History of this County, chap. vii.

IN Wales, as one might reasonably expect, there are many lakes; and one may, with truth, affirm, there is not a single county without them; but, in this respect, Cardiganshire and Carnarvonshire exceed the rest. We shall here take notice of a few only of the most remarkable. Llyn Savâdhan, in Brecknockshire, has been always esteemed, and is indeed, truly singular. It lies about two miles east of Brecknock, and is two miles in length, and nearly the same in breadth, though Leland says but one. When the spring advances, and the ice breaks, it makes so great a noise, resembling long and repeated claps of thunder, as to be heard at a considerable distance (*s*). There is a tradition concerning this, and several other lakes in Wales, that cities formerly stood where we now see water. Our great antiquarian Camden intimates, that, if there be any truth in this current report, it must have been the city of Loventium, mentioned by Ptolemy, led to this from the similitude of names, because the river Lheweny runs out of this lake (*t*). If there be any ground for this, that city must have perished by an earthquake; and perhaps the noise made by the breaking of the ice, may proceed from the hollow caverns in the adjacent country, which are very common in places subject to earthquakes (*u*). The English call this Brecknock-meer; and it is commended for having great store of tench, perch, and eels (*w*). Bosher-ton-meer, not far from Stackpole, in Pembrokehire, is famous for certain rumbling noises in different parts, from whence the people who live near, or even within some miles of it, in consequence of repeated observations, are able to predict the weather, and more especially storms, as they also do from the roaring of the sea, a day or two before-hand (*x*). Llyn Tegid, in Merionethshire, called by the English Pemble-meer, celebrated (if I mistake not) by our great antiquary Leland in verse, and by Camden in prose (*y*). The latter observes, that the river Dee passes through this lake without mixing with its waters; but the proof produced is not satisfactory. It is said that the gwiniad, a fish peculiar to the lake, is never found in the river; or salmon, for which the river is famous, in the lake, which may be, and perhaps is true; but this ought rather to be ascribed to the nature of the fish, than to any such property in the river (*z*). The gwiniad, though this name might be well

(*s*) Camden's *Britannia*, p. 432. Speed's *British Empire*, fol. 109. Brome's *Travels over England, Scotland and Wales*, p. 25.—(*t*) Others, with as little Ground, place Loventium in Caermardenshire. See his *Britannia*, p. 505.—(*u*) Childrey's *Britannia Baconica*, p. 136.—(*w*) Leland's *Itinerary*, vol. vii. p. 67.—(*x*) From a MS. of the Reverend Mr. Nicholas Roberts, late Rector of Llan Dhewi Velfrey.—(*y*) *Britannia*, p. 531. where the Latin Verses of the antiquarian poet (so Camden calls him) are inserted.—(*z*) Speed's *British Empire*, fol. 117. Childrey's *Britannia Baconica*, p. 145. Sir John Prisse's *Description of Wales, with Additions*, by Humphry Lloyd, p. 9.

enough translated the whiting, is indeed of the trout kind, and thought to be precisely the same with the albelen, or alberlin; and by the Germans weifs-fisch, common in many of the lakes of Swisserland; as also with the fish that bears the name of ferra, in the lake of Geneva (*a*). The same kind of fish is also found in some of our lakes in the north of England, and is there known by the name of the Schelley; which, with great probability, is accounted for, from the gwiniad's delighting in deep waters, and feeding chiefly on the water gladiol, the gladiolus lacustris of Clusius, a plant peculiar to these Alpine lakes, and found very plentifully in them all (*b*). On the other hand, the salmon delights in a sharp water, and consequently passes directly through the lake. But if upon the authority of such great men as Camden and Sir John Prise, we should admit the fact: we may at the same time deny that it is a wonder either here or in the Llyn Savâdhan, through which the Lheveney is said to run without mixing its waters, in the same manner as the Dee through this lake. For when we are told that both these rivers are very rapid, and that the colour of their streams distinguishes them in their passages through the lakes, one must be mightily in love with the marvellous, to be at all surprized at it. Besides, there is a great difference in the weight of waters; and those of rivers are universally allowed to be lighter than the waters of lakes. There is a third singularity insisted upon by Camden in regard to this lake, which is, that though land floods, heavy rains, or melting of snows, never raise it above its banks, yet storms of wind commonly, if not constantly, make it overflow. If, as we have before observed, the soil adjacent to these lakes be, generally speaking, hollow, and communicating with caverns under the neighbouring mountains, then very probably the winds may pass through these with force enough to lift the waters over the banks of the lake. It may not be amiss to remark, that Leland (*c*), though he visited this country, and mentions this lake, is silent as to these particulars, unless he is the author of those Latin verses before-mentioned.

LHYN PERIS, or St. Peter's lake, in Carnarvonshire, is also famous for a remarkable kind of fish called the turgoch, that is, the red belly (*d*). This some have fancied peculiar to the lake. Others take it to be the same with the hassler in the lakes of Swisserland, and also with the gilt char (*e*). We are assured by Doctor Leigh that it is not the char, but the case, which is a

(*a*) Annotations on Camden's Britannia, (so far as regards Wales) by Mr. Lhwyd. Willoughbeii Hist. Pisc. p. 183.. Doctor Ray's Travels, vol. i. p. 386. —(*b*) See the Additions to Camden; and Catalogues of Plants in Cumberland and Westmoreland. —(*c*) Itinerary, vol. v. p. 44. —(*d*) Leland's Itinerary, vol. v. fol. 48. Camdeni Britannia, p. 524. Speed's British Empire, fol. 123. Childrey's Britannia Baconica, p. 149. —(*e*) Doctor Ray's Travels, vol. i. p. 368. See also Mr. Lhwyd's Annotations on Camden.

fish extremely like it, and is found in several rivers in Lancashire and Westmoreland, but spawns at a different time of year from the char (*f*). The turgoch comes into season in the beginning of November, and lasts about a month (*g*). This fish is likewise very common in some of the lakes of Italy, and, as we shall shew more at large hereafter, by some of the greatest naturalists in that country, supposed to be no-where else (*b*). Giraldus Cambrensis tells us of two lakes in this county, in one of which there is a floating island, and in the other fish of various kinds, such as trout, perch, and eel, but all of them blind of the left eye (*i*). No such lakes, or rather none with these characteristics, on the strictest inquiry, are now to be met with; but in respect to the last, which is certainly the most wonderful of the two, something very like it has been established on good authority in France, as to pikes with the right eye blind; though in the river Liffone, into which the water of the lake overflows, the same kind of fish are perfectly found. This lake, which is very small, lies near Gabard in Angoumois (*k*).

It seems to be agreed by the best writers, that the waters of lakes are less wholesome than those of springs or of rivers (*l*): yet this ought to be confined to such as do not receive or discharge rivers, of which we have but few. But, notwithstanding this inconvenience, lakes are in many respects useful. The vapours that arise from them, being warm, serve, more especially in northern countries, to temper the rigour of the winter season (*m*). They abound exceedingly with fish, and frequently with such as are not to be had elsewhere; perhaps any kind of fish that are found in foreign lakes, might thrive in most of ours, if by any means they could be transported hither. The waters of lakes are commonly of a great depth; and it seems as if, even in the most opposite climates, the temper of this element remains pretty near the same, and therefore we may naturally enough suppose, that all fish delighting in deep waters will live and breed in them, even in remote and very different climates. But if, at first sight, this should seem not only a little singular, but somewhat chimerical, I desire that the reader will be pleased to reflect, that what is done in one country, is always, under like circumstances, practicable in another. Now, in Switzerland, where they have lakes of all sizes, they have one or more towns upon every lake; and it is generally computed an eighth part of the inhabitants live upon the produce of their fishing (*n*). In

(*f*) Natural History of Lancashire, Cheshire, &c. book i. p. 142.—(*g*) This we are told by Mr. Lhwyd, in his Annotations on Camden.—(*h*) Aldrovandus de Piscibus. Francf. 1610, fol.—(*i*) Itinerarii Cambriæ, lib. ii. cap. ix. Mr. Lhwyd's Annotations on the Welch Counties in Camden.—(*k*) Histoire de l'Académie Royale des Sciences, pour l'An, 1747, p. 37.—(*l*) Boerhaave's Chemistry, translated by Doctor Shaw, vol. i. p. 439, 440.—(*m*) Derham's Physico-Theology, book iv. chap. 12.—(*n*) Bishop Burnet's Travels through Switzerland, Letter, ii.

the lake of Zugh, which is not very considerable, we are assured by one of our own countrymen, whose authority in this point is indisputable, that there were at least fifty several kinds of eatable fish, all in great plenty, and some of the most delicate sorts, such as trouts, grayling, char, pearch, eel-pouts, and many others (*o*); so that he was extremely at a loss to conceive how all this fish got thither, thinking it hardly possible that they should come against the stream five hundred miles up the Rhone; whereas, in truth, such as were not natives of the lake, were brought there; and we have therefore very little reason to doubt, since, as we have already shewn, the same fish are to be found in the lakes of different countries, that most kind of fish which live in lakes in one country, will also live in another, because they, as we remarked before, delight in deep water, and in the plants that commonly grow on the sides of such lakes (*p*). It is the vanity arising from the possession of rarities, that has been the support of a contrary opinion, which appears clearly from the char, of which we have for this very reason said so much. At Verona it is extolled as the greatest delicacy under the name of *carpione*, in Latin, *carpio benaci lacus*. Gesner calls it *salmo*, vel *trutta benaci lacus*; for out of the *lago di garda* it was not to be found (*q*). We had the same notion with respect to *Windermeer*, with just as much foundation. Other writers have described this fish under the name of *umbla lacustris minor*; and this peculiar fish, we are assured by the great Linnæus, is the common food of the Laplanders, being found in the utmost plenty in those lakes, that are so cold, as not to nourish any living creature in them but this (*r*). Whoever reflects upon what has been said with attention, and at the same time remembers, that most sorts of fish have been imported (*s*), and that those brought from China and the East Indies, thrive and produce their kind here as well as in their native waters, can never look upon the improvement which I have offered as impracticable; though, at the same time, I must take the liberty of observing, that, if I had room, I could add a great deal more upon this subject, which would fully demonstrate that it is not only possible and practicable, but very easy to be accomplished.

BUT, I should be wanting to myself, and to the satisfaction of the inquisitive reader, should I neglect to inform him, that this method of improving is already practised in China, where their pedlars carry jars of spawn about from one province to another through the whole empire, for this very purpose of stocking every lake with all the different kinds of lake fish (*t*). A cir-

(*o*) Ray's Travels, or Observations Topographical, &c. vol. i. p. 368 — (*p*) See Mr. Llwyd's Annotations on Camden's Descriptions of Meryonnedshire and Caernarvonshire. — (*q*) Willoughbeii Hist. Pisc. p. 183, 184. Doctor Brown's Travels, p. 204. — (*r*) Hill's Natural History, vol. iii. p. 221, 222. — (*s*) Houghton's Collections on Husbandry and Trade. — (*t*) D. F. Navarette, *Tratados Historicas de la Monarchia de China*, lib. i. cap. 19.

cumstance that certainly demands the notice of an age and nation that seem so much disposed to do the subjects of this empire justice in every other respect. We already imitate the Chinese in a multitude of things; why not in this? We adopt their grotesque paintings; we are proud of imitating their porcelaine; we are daily quitting our own principles of architecture, in order to follow theirs; why not copy them in a matter of such apparent benefit? We might then have all the lake fish of this island in every lake, with as much ease as they transport them from this province of their empire to that. We might then procure the streamling, which is the prime fish, in the Swedish lake Maeler (*u*); the rheinlacker, or Rhine salmon, which are two ells long, and forty pounds weight, from the lake of Constance (*w*); and those enormous trouts, that are the glory of the Geneva lake (*x*), with as little trouble, without question, as the Chinese carry their jars even from the remotest districts of their extensive empire. We might imitate them also, when our lakes were thus stocked (for that of course would bring us water-fowl of every kind), in making use of birds of prey to fish for us, before they were permitted to feed themselves (*y*). And thus employment and subsistence too being found for an accession of people, every little lake would quickly have its village; every larger one, in process of time, would have its town, as well in the rough parts of Britain, as in Switzerland. In order to effect many things of this kind, there is nothing more requisite, than to convert that restless passion of curiosity, which is the characteristic of the present age, into a laudable view to utility; which, by a few exalted and conspicuous examples, might certainly be done. We had heard that gold and silver fish served to amuse the idle in China (*z*). We longed for them here. Experience has shewn that this longing might be gratified; and the same experience has shewn us, that this is a mere piece of amusement. Surely the trouble would not have been greater, or the acquisition less satisfactory, if it had produced us fish that were fit to eat. We very readily admit that this, as it stands, was a very innocent experiment; and, on the other hand, we hope it will be allowed that our proposal is more useful, and that there is not the smallest room to doubt that it may be attended with as much success (*a*).

WE may with great probability presume, that lakes, as well as springs, and other collections of waters, have their particular properties; and though they may be less palatable, or wholesome,

(*u*) Bishop Robinson's Account of Sweden, p. 5.—(*w*) Gefner, de Pisc. p. 1220. Addison's Travels, p. 177. Delices de la Suisse, tom. i. p. 51.—(*x*) Aldrovand. de Pisc. 585. Delices de la Suisse, tom. iv. p. 306.—(*y*) D. F. Navarette, Traictés Historicas de la Monarchia de China, lib. i. cap. 18.—(*z*) Du Halde Description de la Empire de Chine, tom. i. p. 43.—(*a*) Might not some of the small jars, filled with spawn, be as easily obtained as the gold fish?

have, notwithstanding, qualities that may in some measure compensate these defects. We are told, that in the very empire of which we are speaking, there is a certain lake (*b*) surrounded with villages, full of inhabitants, drawn thither by an absolute assurance, that the silk washed in it derives from thence a lustre, not to be obtained any other way. We can have no hopes, it is true, of repeating this experiment; but possibly some of our lakes may be found as useful in bleaching, or in some circumstance regarding our woollen manufacture, which might prove as beneficial to us as that is to them. Nature is said to be a mother to some people, and a step-dame to others; but the real truth is, that Providence is kind alike to all, and it is industry only that makes a difference between nations; and those who contemplate her gifts, and study how to make use of them, very rarely fail of finding their pains rewarded, even beyond their expectations. We know that though hard waters are unfit for many uses, yet there are also many uses for which they are more fit than others (*c*). There are therefore good grounds to believe that these, as well as other waters, have very beneficial qualities, if we could distinguish them. We have reason to think that they might be tried, with very considerable advantage, in the striking different kinds of dyes, which is a point that deserves to be examined. We have a hint given us by Leland, of which no notice has been taken by other writers, of a salt lake in Cheshire (*d*). He says, that about a mile from Cumbermeer Abbey, part of a hill, with trees upon it, sunk down suddenly, and was covered with salt water; of which the abbot being informed, caused it to be wrought; but the proprietors of the Wiches compounding with him, he left off working. He adds, that this salt pool still remained in his time, but that no care was taken of it. This merits the greater attention, because we have a particular account of an accident of the same kind that fell out near Bickly, in the same county, in 1657 (). We may at least from these instances perceive, how some small lakes are formed; and it is very possible that the traditions relating to larger lakes, formed in the same manner, are not so totally void of foundation as is commonly imagined. It is more than probable that the great Lord Bacon never heard any thing of the first; it is certain he could know nothing of the latter; and yet in a work of his, which is far from being the least valuable amongst his many admirable performances, he has touched upon this head, and treated it in a manner as if he had been led to it by these very instances (*f*). It was his talent to conceive whatever might be

(*b*) Du Halde, Description de la Empire de Chine, tom. i. p. 127.—(*c*) In boiling Fish, making Plaster, and in preparing Cloth for receiving certain Dyes.—(*d*) Itinerary, vol. i. p. 82.—(*e*) Childrey's Britannia Baconica, p. 131, 132.—(*f*) See his new Atlantis, §. viii. See also the Title Fren in his Sylva Sylvarum.

possible, and to point out the uses of things even before they were discovered. It is our more humble endeavour to borrow from the discoveries of others, and to aim at the improvement of those things which, in whole or in part, have been neglected, though sufficiently known.

It may with great justice be asserted, that no country can be more plentifully or agreeably supplied with water, than North Britain, in which there were anciently a multitude of springs, in high repute for their sanative virtues; and since the qualities of waters have been more rationally, as well as rigorously examined, there have been abundance of medicinal and mineral fountains discovered, of which we shall only mention a few. That which bears the name of Aberbrothock, or, as commonly pronounced, Arbroth spa, in the county of Angus, rises in a gravelly soil, through a bed of pebbles, intermixed with sand, at a small distance from that town, and is apparently impregnated with steel (*g*). The water has a brisk spirituous taste at the well, and yet bears carriage to some distance tolerably. It is found, by experience, to give great relief in gravelly and nephritic cases; to purify the blood in the scurvy, and to remove acidity in the stomach; but its greatest effects are in nervous cases, and broken constitutions, from what in that country is stiled fast living, in which it has done very great and unexpected cures. On the side of a round hill, at a very small distance west from that city, springs the Aberdeen spa, the virtues of which, in many chronic distempers, have been celebrated by Doctor William Barclay, professor of physic in that university (*b*). At a small distance from Cortachie, the Earl of Airly's seat, on the river of Southesk (*i*), there rises a steel water at the foot of a hill, amongst rocky stones, that sparkle like Marcasites when they are broken. These waters resemble in a great measure, and have much the same virtues with, those of Aberbrothock spring; and they are both drank with the greatest success immediately after the ceasing of the spring rains, that is, in the months of May and June, or before those of the autumn, in the months of August and September.

THE Dunse spa in the Merse, of which notice was first taken in the year 1747, rises in a valley, about a mile on the south side of that town, at a very small distance from a brook. It appears, upon a strict examination, to be a very pure chalybeate spring; but, notwithstanding the simplicity of its contents, of very powerful virtues when drank upon the spot. The scum that settles on

(*g*) Doctor Alexander Thompson's Account of the mineral Springs in the Neighbourhood of Montrose, being the sixth Article in the second Volume of the Edinburgh Medical Essays.—(*b*) R. Sibbaldi, *Prodrom. Naturalis Historiæ Scotiæ*, P. i. lib. i. cap. 10. p. 25. Additions to Camden's *Britannia*.—(*i*) Medical Essays, Edinburgh, 1747, 12°. vol. ii. p. 45.

the surface has been applied with success to weak eyes. The water taken under proper direction, to the amount of two quarts in twenty-four hours, removes flatulencies in the stomach, strengthens the bowels, cures indigestion, frees children from worms, is of signal service in the scurvy, and even in scrophulous cases. In nervous disorders it has been used with benefit, as also in spasmodic cases; and there are instances of its curing palsies, even in old people. The credit therefore of this spring may be considered as thoroughly established (*k*). Glendy spa rises at a very small distance from the famous Kairn on the top of the Grampion hills (*l*), in a bog, with moss round about, and no rock near it: it mounts up in bubbles, as if boiling, through the moss, which is loaded with ochre. The virtues of the waters are very considerable; they may be drank with little or no previous preparation, and are very serviceable in removing gravelly complaints, in most scurvies, and cutaneous distempers; but are particularly beneficial in nervous cases, and in a general bad habit of body.

In the year 1748 Mr. John Williamson discovered a very valuable mineral spring, from thence stiled at first Williamson's water, on the Hartfell mountain, three miles distant from Moffat, which, upon a strict examination, is affirmed to contain in its waters a native fixed vitriol of iron; whence it appears to be aperient and strengthening, and must be of great use where the solids are relaxed, and the blood grown watery and weak (*m*). It is very certainly known to cure hot tetters eruptions, obstinate ulcers, bloody flux, bloody urine, spitting of blood, rheumatic pains, and weaknesses of every kind, more especially those arising from long illnesses. But what must appear very singular, and which nothing could support but the evidence of facts, these waters have done most surprizing cures in consumptions of the lungs in a very short time; and what renders the Hartfell spa still more valuable, its waters bear carriage as well, if not better, than any of like virtues, and may be drank with very near the same advantage at any distance as upon the spot (*l*).

KINCARDINE spa rises in the neighbourhood of a pleasant rivulet, through a bed of flintstone and sand (*n*). It is a pure chalybeate, and has very near the same properties with the spa at Aberbrothick. There flows out of a rock, not far from the town of Kinghorn (*o*), a clear pleasant spring, remarkably cold,

(*k*) See a very methodical and ingenious Account of these Waters, entitled, "An Essay on the Contents and Virtues of the Dunfermline Spa, by Francis Home, M. D. Edinburgh, 1751, 8°."—(*l*) Medical Essays and Observations, vol. ii. p. 45.—(*m*) Essays and Observations Physical and Literary, Edinburgh, 1754, vol. i. p. 341—371.—(*n*) It may be proper to give the Title of the whole twelfth Article from the Book last cited; "Experiments and Observations on the Hartfell Spa, made at Moffat; and an Account of its medicinal Virtues, so far as they have hitherto been discovered from Experience, by W. Horsburgh, M. D."—(*o*) Medical Essays and Observations, vol. ii. p. 44.

which

which was formerly in great repute for curing inflammations of the eyes, removing eruptions on the skin, relieving nephritic complaints, restoring lost appetite, and for many other virtues, which were celebrated in a treatise, written on purpose to recommend it, by Doctor Anderson, who, in the last century, was a very eminent physician (*p*). Lentretham spa, near the mouth of Glenisla, not far from Montrose (*q*), is amongst the number of the chalybeate springs mentioned by Doctor Alexander Thompson, who farther observes, that in this part of Scotland they are so common, that there is scarce a parish without them. But, like all the other blessings afforded us by Providence, this is liable to some abuses, by the common people drinking it at all seasons indiscriminately, for every, sometimes without any, complaint, and in such prodigious quantities, that it is no wonder if it does more harm than good.

THE waters of Moffat in the Steuarty of Annandale (for there are two springs, separated by a small rock) at about a mile distance north from that town, and thirty-six south-east from Edinburgh, were as early known, in as much esteem, and have maintained their credit as well as any in Great Britain (*r*). They smell very strong, not unlike the barrel of a foul gun, and of a bluish milky cast, and are reputed sulphureous (*s*). They are taken in large quantities, are esteemed very strengthening and balsamic, ease all pains in the stomach, and gripings in the bowels, cleanse all cutaneous eruptions, and are sovereign in scrophulous cases, if persisted in for a proper time. They are likewise singularly serviceable in all kinds of cholics (*t*); but they are not to be meddled with by persons who have coughs, distempers in the lungs, or hectic heats; all which is no disparagement to the waters, since the very qualities that render them salutary in some distempers, make them very unfit to be drank by such as are afflicted with diseases of another nature (*u*).

MONTROSE spa (*w*) rises to the air from a black moss-coloured earth, having first penetrated through several beds of soft clay and sand. It is of a whitish colour, soft taste, and discovers but very little of the mineral. It is very diuretic, and if drank in a sufficient quantity, purgative. It greatly relieves pains in the stomach, weaknesses of all kinds, the strangury, gravel,

(*p*) The Title of this learned Physician's Book, was "The Cold Spring of Kinghorn."—(*q*) Medical Essays and Observations, vol. ii. p. 45.—(*r*) R. Sibbaldi, Prodom. Natural. Historiæ Scotiæ, P: i. lib. i. cap. 10. p. 25. Additions to Camden's Britannia.—(*s*) A Topographico-spagyric Description of Moffat Wells, by Mr. Matthew Mackaile, Apothecary.—(*t*) Short's History of Mineral Waters, P. ii. p. 72--75. Experiments on the medicinal Waters of Moffat, by Andrew Plummer, M. D. Fellow of the Royal College of Physicians, and Professor of Medicine in the University of Edinburgh, being the eighth Article of the first volume of Medical Essays, &c.—(*u*) An Account of the Virtues of the Mineral Waters near Moffat, by Mr. George Milligen, Surgeon at Moffat, Art. vii. of Medical Essays, vol. i. p. 54--69.—(*w*) Doctor Alexander Thompson's two Dissertations on the Virtues of Montrose Well. Medical Essays, vol. iii. p. 53--90.

and stone; scurvies, even in their worst condition; spitting of blood, and all the disorders incident from undue secretions. Peterhead spring (*x*), in the shire of Aberdeen, celebrated as a vitriolic water, in the last century, by Doctor Moor, an eminent physician, and professor of medicine in that ancient university, is pretty much of the same nature with the spring of Aberbrothock, except that in too great relaxation of the solids, this is very much to be preferred. St. Katherine's well in Lothian (*y*), at a small distance from Edinburgh, has been long remarkable for an oil, of a black colour, and pleasant smell, floating on the top of the waters, which has been used medicinally, with great success, for old aches and wandering pains. At Slains in the shire of Buchan (*z*), there is a petrifying spring, the water of which, when exposed to the air, very speedily turns to a kind of friable stone.

As to the practice of cold bathing, it never fell into disuse in North Britain; but for the sake both of pleasure and health, in the northern parts more especially, was frequent among men of all ranks, and rarely omitted in respect to children of both sexes (*a*); which might perhaps be the reason that particular cold baths were not much known, or considered. It is, however, allowed by the best judges, that mineral springs may, thus applied, have salutary effects, and perform cures that could not be expected from common water (*b*). Sir Robert Sibbald takes notice of Arthrey, within two miles of Stirling, which being in the neighbourhood of a copper mine, he judged from thence must derive more than ordinary virtues (*c*). The cold spring of Kinghorn, very probably in this respect, falls little short of Holy Well, in Wales (*d*). The ingenious Doctor Home, having experienced the benefits of external application in various diseases, expresses some regret that, at the time he wrote, they had no conveniencies for bathing in the water of Dunse (*e*); and Doctor Thompson, for the like reason, proposed an improvement of the same kind at Montrose (*f*). No hot baths have yet been discovered in this part of the island. But it was always the practice to use the extremely fetid waters of the upper well at Moffat in this way (*g*). In earlier times they heated these to as high a degree as they could be well borne; but at present their baths are no more than tepid (*h*); and at Heartfell the greatest cures are found to be effected, more especially in stub-

(*x*) Sibbaldi, *Prodrom. Naturalis Historiæ Scotiæ*, p. i. lib. i. cap. 10. p. 25. *Medical Essays*, vol. ii. p. 52, 56. — (*y*) Hect. Boeth. *Scotorum Regni Descriptio*, fol. 6. Varenii, *Geograph. §. iv. cap. 17. prop. vii.* — (*z*) Sibbaldi, *Prodrom. Naturalis Historiæ Scotiæ*, p. i. lib. i. cap. 10. p. 25. — (*a*) Sir John Floyer's *History of Cold Bathing*, p. 171, 172. — (*b*) Wainwright's *mechan. Account of the Non-naturals*, p. 118, 119, 120. — (*c*) *Prodrom. Naturalis Historiæ Scotiæ*, p. i. lib. i. cap. 10. p. 25. — (*d*) Sir John Floyer's *History of Cold Bathing*, p. 165. — (*e*) *Essay on the Contents and Virtues of Dunse Spa*, p. 204. — (*f*) *Medical Essays and Observations*, vol. iii. p. 89. — (*g*) Mr. George Milligen's *Account of Moffat Wells*, in the *Medical Essays*, vol. i. p. 58. — (*h*) This alteration is of much greater importance than it seems at first sight.

born disorders, by using them externally as well as internally (*i*). Sir Robert Sibbald mentions the dissolving the black oil of Katherine's Well in Moffat waters made hot, and rubbing them into the parts affected, as a practice which, in his opinion, might be used with much benefit, and which, for that very reason, deserves to be remembered (*k*). It would be a work of wisdom, policy, and charity, to put all these springs into the best condition possible, for drinking and bathing, at the public expence, with a competent salary for a physician of established character and experience to attend each of them, direct their use, and register their cures. This would be more especially requisite in such as are situated in obscure places, and difficult of access, since it might be an effectual means of raising towns, and creating society, where most wanted. As there is already a board of police in North Britain, I speak with the greater confidence; for certainly they could not do a better office to their country, than to promote by this, and every other method, establishments where as yet there are none.

It is certain that the number of lakes in North Britain much exceeds those in the South, even if we include the lakes in Wales; and yet the lochs in that part of the island appear to be more numerous than they really are, since not a few that pass currently under this appellation, are at this time, properly speaking, arms of the sea. It would be very easy to give many instances; but as we have little room to spare, one that clearly points the thing out to be as we have suggested, shall suffice. The county of Galloway stretches itself in a very singular form into the Irish sea, not very unlike an anchor. On the south fidelies the bay of Glenluce; yet the inlet on the north is called Loch Ryan, or Lochrain, though it is as much an arm of the sea as the other (*l*). But, notwithstanding the apparent impropriety of this distinction, perhaps it may be accounted for. On the north-east side of the island there is such another arm of the sea, which is called Loch Beaulieu; and it is very certain that all this was once dry land, the roots and remains of oak trees being still visible at low water (*m*); and possibly, though history is silent as to the fact, this might be also the case of Loch Ryan, Loch Streven, Loch Fyn, and other arms of the sea that bear this denomination. Others, again, are mere expansions of rivers, which from that circumstance only are stiled Lochs; and of this there is a very remarkable instance in the shire of Inverness, where, at a small distance from Dalwhine, there rises a spring, which running a little way north-east, spreads its waters abroad, and is then distinguished by the name of Loch Doun; out of which proceeding again, with no very considerable current, and presently diffusing itself a second time,

(*i*) Essays and Observations Physical and Literary, vol. i. p. 371. — (*k*) Prodrom. Naturalis Historiæ Scotiæ, p. i. lib. i. cap. 10. p. 25. — (*l*) Buchanan. Hist. Scot. lib. 5. — (*m*) Philosophical Transactions, No. ccliv. p. 231.

assumes the name of Loch Wrodin; passing thence in the form of a rivulet for the space of half a mile, it spreads a third time, and then takes the name of Loch Gaich; on its exit from the latter, it is stiled the river Trommy; and running seven miles more, under that denomination, falls at length into the Spey, at a place called from thence Invertrommy (*n*). As to the large Loughs, most, if not all of them, are fed by brooks or rivulets, and commonly issue in a considerable river of the same name, as Loch Tay, Loch Ern, Loch Leven, Loch Dee, &c. (*o*) Some great rivers issue also from small lakes, as the river Spey from Loch Spey (*p*); and Loch Lomond, which is held the most copious body of fresh water in North Britain, being twenty-four miles long, eight broad, and having in it thirty islands, of which three are well inhabited; sends forth two rivers, Lomond and Leven (*q*). Thus it appears that the far greater part of the lakes or lochs of North Britain are not, as is commonly apprehended, standing waters, but either admit the tide from the sea, or have streams of fresh water running through them; and yet some there are, though not many of this last sort, of which, if I mistake not, is Loch Maben, in Annandale, which is five miles long, and four broad, plentifully stocked with many different kinds of fish (*r*). We may from hence collect, pretty clearly, the cause why there are so many lakes in this part of the island. As it abounds with mountains and hills, in like manner with Wales, and the northern counties of Lancashire, Cumberland, and Westmoreland, so from the sides, and towards the bottom of these, break out springs, the waters from which passing along till they meet with deep vales, must fill them up before they can open a passage farther; and according to the different sizes of such vallies, the lochs are of larger or lesser extent, out of which the water issuing, in a country of more regular descent, continues its course either into some larger river, or till it falls into the sea (*s*).

SOME of these lochs or lakes, in North, as well as those in South Britain, are distinguished by their particular qualities; as, for instance, Loch Ness, which is twenty-four miles in length, near four in breadth in some places, and in others two, of so great a depth, that as yet it has not been ascertained; and its waters so warm, that they never freeze; nay the river Ness, which runs about six miles from the loch into the sea, is observed in the coldest winters to smother (*t*). Some have ascribed this to the vicinity of the sea on both sides the island;

(*n*) See Dorret's large map of Scotland, and the survey of the military roads.—(*o*) H. Boethii, *Scotorum Regni Descriptio*. Buchanan. Hist. Scot. lib. i. Sibbaldi *Prodrom. Naturalis Historiæ Scotiæ*, p. i. lib. i. cap. 9.—(*p*) Camdeni *Britannia*, p. 714.—(*q*) Buchanan. Hist. Scot. lib. i. Sibbaldi *Prodrom. Naturalis Hist. Scotiæ*, p. i. lib. i. cap. 9.—(*r*) Hæstoris Boethii, *Scotorum Regni Descriptio*, fol. 3.—(*s*) Varenii *Geograph. §. iv. cap. 15*.—(*t*) Boeth. *Scotorum Regni Descrip.* fol. 4. 5. Buchanan. Hist. Scot. lib. i.

which is very improbable, since the lakes between it and the western ocean are known to freeze; and at no great distance there is a little lake, called Loch Wyn, i. e. green, covered with ice winter and summer (*u*). There are other lakes, as well as Loch Nefse, that very seldom, if ever freeze; such as Loch Taie, and Loch Eirn (*w*); and some, that like the green loch, continue, either in whole or in part, frozen through the year (*x*). Some, as particularly Loch Lomond, seem affected by subterraneous winds, being tost and put into motion when the exterior air is very calm (*y*). It will appear, from what has been said, that the number of lochs in this part of Britain cannot be stiled injurious to the health of the inhabitants from their effluvia, as very few are filled with standing waters, the vapours of which are known to be very unwholesome. On the contrary, these lochs, or at least most of them, from their nature and disposition, are exceedingly beneficial to such as dwell near them, by furnishing them with fish and fowl, and, when the country shall be better cultivated, and more fully inhabited, are capable of being rendered so in a much higher degree. They abound with fish, some of them in a manner almost incredible, and with fish of very different kinds, the sizes of the same species differing also even in neighbouring lochs; to say nothing of those that are supposed to be peculiar to particular lakes, which probably may depend upon accident, and to pass over likewise the pearl and purple mussels, which are curiosities both here and in Wales, they are sources likewise of many other advantages (*z*); they supply the place of rivers, and enable people to correspond with each other with much greater conveniency than they otherwise could do, with far less fatigue, and at all seasons. This might be very much improved, so as to open a communication between the seas, on the east and west sides of the island, and with very little trouble. The shire of Inverness, even taking it in the sloping direction of the loughs, is not above sixty miles broad. Of these the river Nefse and the lough take up one-half; to the westward lie Loch Oich, Loch Lochy, Loch Eil, which opens into Linhe Loch, that is in fact an arm of the sea; so that, in all this space, there is not above eight miles of land-carriage; and, as to the depth of water, it is sufficient to observe, that, in Cromwell's time, there was an armed vessel upon Loch Nefse passing continually between Inverlochy and Inverness, and consequently there might be so again (*a*). The land in the neighbourhood of these lochs is observed to be more fertile,

(*u*) See the Reverend Mr. James Frazer's Letter in the Philosophical Transactions, No. ccliv. — (*w*) Sibbaldi Prodrum. Naturalis Historiæ Scotiæ, p. i. lib. i. cap. 9. p. 12. — (*x*) Sir George Mackenzie, afterwards Earl of Cromarty, his Letter in the Philosophical Transactions, No. cxiv. p. 307. — (*y*) Boethii, Scotorum Regni Descriptio. fol. 3. Buchan. Hist. Scot. lib. i. — (*z*) Sibbaldi Prodrum. Naturalis Historiæ Scotiæ, p. i. lib. i. cap. 9. — (*a*) Mr. James Frazer's Letter before cited, who was well acquainted with captain Orton, who commanded that vessel, and I am also informed there has been such a one since.

the grass on their banks to be richer and more nutritive, and the warm vapours of the lakes also improve the climate, so that rosemary has escaped in the gardens near the river Ness, in very severe winters, that have killed and destroyed it in those many miles south (*b*). Hence, in Caithness and Sutherland, where there are many more, and some of these larger lakes than in all Wales, the climate is soft, and the country is fruitful to a degree scarce to be expected, considering how far it lies to the north; and this number of lakes furnishes the inhabitants with such quantities of fish and fowl, that they actually live in great abundance; and if they had trade, and were accustomed to improvements, might very soon add elegance to plenty (*c*).

Our subject now leads us into Ireland, where, if we had as distinct a history of the waters of every kind throughout the island, as we have of some particular counties (*d*), we should certainly find a larger field, the extent of territory considered, than even in Britain. As it is, we have abundant materials to answer our intention, and to demonstrate that Providence amidst that redundancy of waters of which some have complained (*e*), without any good reason perhaps, if we reflect that most of the inconveniencies which flow from them, are not so properly attributed to nature as to accident; not so justly to the country, as to the revolutions to which it has been subject; there are, notwithstanding, all the advantages derived in other countries from this necessary fluid, found, and found in great perfection, as will be evident even from those few instances that, through the length of this chapter, we are obliged to content ourselves producing, and which may suffice, till the natural history of Ireland, from the encouragement given by the learned societies in that country, shall appear in a complete body, and represent that noble kingdom as it deserves. A work long desired, often attempted, and whenever accomplished, will shew that, Britain excepted, there exists not a better situated, or a fairer island upon the globe (*f*).

To begin then with a specimen of the singular, medicinal, and mineral springs, that have been discovered in Ireland. At Ballymurtogh, on the south bank of the river Arklow, at a small distance from Newbridge, in the county of Wicklow, there issues a water from a copper mine (now no longer wrought), so highly saturated with vitriol, that it produces what was formerly called, though with great impropriety, a transmutation of iron into copper (*g*); in relation to which we shall say something more, in speaking of another water that possesses this property in a still higher degree. At Bal-

(*b*) Sir George Mackenzie asserts this from his own knowledge. — (*c*) *Atlas maritimus et commercialis*, p. 18. (*d*) Such as Cork, Down, Waterford, &c. (*e*) Girald in *Topograph. Hib.* cap. v, vi, vii. *Id. de Mirabilibus & Miraculis Hiberniæ*, cap. ix. (*f*) Bedæ *Hist. ecclesiast. Gentis Anglorum*, lib. i. cap. i. (*g*) *Philosophical Transactions*, vol. xlvii. No. lxxxiv. p. 590.

lynahinch, on the skirts of a mountain, called Slieve Croob, in the diocese of Dromore, and barony of Kinelearty, there is a mineral spring (*h*), which in brightness of colour is inferior to none, but very disagreeable in taste and smell, resembling in both the waters of Moffat, and esteemed not below them in virtue, more especially in scorbutic and scrophulous cases with this advantage, that it bears carriage, even to a considerable distance, without losing its salutary qualities. Ballypellan, about eight miles from Kilkenny, has been many years in repute, and sometimes stiled, though perhaps improperly, the Irish spa. It is an excellent chalybeate, as we have been informed, has done great service in disorders of the stomach, in hypochondriac maladies, cholics, and the most stubborn eruptions of the skin, have been removed by drinking, for a short time, these waters. Clonmell spring issues out of the side of a rising ground, that is, notwithstanding, over-looked by a pretty steep hill, on that side of the river Suir which is in the county of Waterford (*i*). The cures performed by drinking of this water in the scurvy, and other chronic distempers, drew thither, some years ago, a great resort of people; but fashion, which rules in Ireland as well as Britain, has brought other waters of late into higher credit.

CRONEBAUN (*k*) is in the neighbourhood of Ballymuragh, but on the other side of the river Arklow, and near forty miles from Dublin, and, like that, flows from a copper mine, which is still wrought. It is so much stronger than the spring before-mentioned, that they make use of the water for the same purpose that renders the famous springs in Ziment, in Hungary, a continual fund of riches (*l*); that is, they conduct its waters to certain pits, in which bars of soft iron are placed, which, covered with this water, gradually dissolve; a copper rust is thence formed, which retains the shape of the iron bars. In order to expedite the work, this rust is from time to time rubbed away, and sinks to the bottom of the pit. A tun of iron produces very near twice the quantity of this rust, from which they smelt above a ton and a half of fine copper, much more valuable than what is derived from the ore of the mine, though that is also wrought to great profit. These waters are also used medicinally both externally and internally; but perhaps the former is the safer practice. It is held to be a great specific in the cure of worms (*m*).

At Cross, near Cross Town, in the county of Waterford (*n*), several springs were discovered in a bog, which are said to be of a

(*h*) The ancient and present state of the county of Downe, chap. ix. p. 175. — (*i*) Philosophical Transactions, vol. xlvii. No. lxxxiv. p. 500—503. — (*k*) Ancient and present state of the county and city of Waterford, by Charles Smith, chap. ix. p. 241. — (*l*) Kercheri Mundus subterraneus, tom. ii. p. 185. Doctor Edward Brown's travels, p. 68, 69. Jacobi Tollii epist. itiner. p. 191. — (*m*) Philosophical Transactions, vol. xlviii. No. xii. p. 94.—96; No. xxviii. p. 181—190. — (*n*) The ancient and present state of the county and city of Waterford, chap. ix. vitriolic

vitriolic nature, but very mild, and effecting great cures in the jaundice, and other distempers arising from obstructions, when drank in small quantities; and these waters are likewise said to bear carriage without injury to their virtues. The spring at Dromore rises in the town of that name, by the river side, covered by an arch; it appears, upon examination, to be a chalybeate, has been drank with success for gravelly complaints, and sometimes, more especially in dry seasons, purges (*e*). Grangee or Granshaw mineral spring, in the county of Down, lies in a little valley, surrounded on all sides by hills of easy ascent; it has an aspect to the east; and on the south there is a large bog. It has on proper trials been found, that the waters are not inferior in strength to the best of the British chalybeates, sit easy on the stomach, and have done great service in the gravel (*p*).

KANTURK SPRING, about half a mile north-west of a town of the same name, in the county of Cork, rises on the banks of the river Alla, by which in great floods it is overflowed. It is esteemed a chalybeate sulphureous water, as well from experiment as from its smell and taste. Many have been relieved by these waters in scorbutic disorders, loss of appetite, and in the gravel; they have been also of service in the king's evil; and there have been two instances of their curing drop-sies (*q*). Killagee water, near three miles north from Grangee, in the county of Down, is a water of much the same nature; and experience has shewn, that put into new bottles carefully corked and refined upon the spot, it bears carriage tolerably (*r*). Kilmeadan, in the county of Waterford, breaks out in the high way between two rising grounds, with such force, that in crossing the road it becomes a little brook. It is a light chalybeate, very diuretic, and was drank about forty years ago with much success; but, in order to experience its virtues it must be taken on the spot (*s*). Macroomp spa, at the distance of half a mile from that town, in the county of Cork, rises on the very brink of a bog, is a mild chalybeate, has done great service in hypochondriacal cases, in cutaneous eruptions, in the scurvy, and even in scrophulous cases, when all other means have failed (*t*). Newry spa, in the county of Down, is a weaker chalybeate, which at the spring may be drank with great advantage by persons of a tender and delicate constitution (*u*). Tierkelly, two miles north-east from Rathfryland, in the same county, is a more potent chalybeate (*w*) and has been used both externally (that

(*e*) Ancient and present state of the county of Downe, chap. ix. p. 167. — (*p*) Ibid. p. 168. — (*q*) Ancient and present state of the county and city of Cork, p. 269, 270. — (*r*) Ancient and present state of the county of Downe, chap. ix. p. 169. — (*s*) Ancient and present state of the county and city of Waterford, chap. ix. p. 244. — (*t*) Ancient and present state of the county and city of Cork, p. 275. — (*u*) Ancient and present state of the county of Downe, chap. ix. p. 167. — (*w*) This renders the advice of a skilful physician more necessary in the choice and management of mineral waters, than in any other branch of medicine.

is by washing the parts affected) and internally with great success in scorbutic cases (*x*). These instances are chiefly given from three counties, viz. Cork and Waterford in Munster, and Down in Ulster Province; in which counties many more of these salutary waters have been discovered, and therefore we have good reason to believe there are numbers of such valuable springs, and those too of various kinds in all parts of the island; which abundance cannot in the least depreciate the value of the blessing, since to have the means of removing pain and disease every where at hand, is perhaps the greatest that any nation can possess.

WHEN there are so many mineral springs, and of very different natures, there cannot be any want of cold baths; and these either are, or no doubt may be, improved in such a manner, as, in conjunction with the internal use of the waters, to render the cures performed by them more speedy, and more certain. As to warm waters, the most celebrated is that of Mallow in the county of Cork, anciently in high esteem as a holy well, and dedicated to St. Patrick, but disused till about thirty years ago, that its virtues by accident were again made known, and its credit consequently recovered. This famous spring is situated on the south side of the town, one of the pleasantest in the province of Munster (*y*), and on the north side of the Black Water river. A rising hill of limestone rocks defends it on the south, from the bottom of which it arises perpendicularly, bubbling up a living spring immediately to the day. Hence it is not improbable but it may have, in the rock about it, some hollow cavern for its natural receptacle, where it receives its impregnation, and from which the spring is continually supplied (*z*). A few yards more to the west is another spring, which is not either warm, or affords any other appearance than that of good fountain water. But there is a third spring, a little to the east, which is warm, and of the same nature as the first, but lying open and uncovered, is never used medicinally. From the spa issues a considerable current of water; the quantity that it affords is not easily calculated, but it may be computed to discharge twenty gallons in a minute, or twelve hundred gallons in an hour. On the rocks in the neighbourhood, as well as on the roof of an adjacent grotto, several stony substances hang like icicles. The soil on the top of these rocks is a thin, warm, dry turf, abounding with aromatic herbs, which perhaps may render the milk of the cattle feeding on them wholesome in an extraordinary degree, as the air is likewise accounted, the town being sheltered by mountains at a distance, a river running briskly through the vale, and lying open towards the north. These waters are

(*x*) Ancient and present state of the county of Downe, chap. ix. p. 170. —

(*y*) Ancient and present state of the county and city of Cork, book ii. chap. vii. p. 335. — (*z*) The reader will discern, that there is a great resemblance in the situation of warm springs, and in the produce of the lands about them.

drank with great success where secretions are redundant; are very serviceable in emaciated constitutions, after long fevers; cure ulcers in the bladder, and disorders in the urinary passages; some cholics; dropfies in particular stages, cancers, strumæ, scorbutic and cutaneous eruptions, and most disorders which imply obstructions of the vessels (*a*). It is not a little strange that, as far as we know, this water has not been used externally for any purpose; and yet one would be apt to imagine that the healing virtues might be as great from bathing as from drinking.

THIS island, however, is not destitute even in that respect; for on the west side of Lough Neagh there is a considerable portion of the lake in the county of Tirone, which is called Fishing bay, about half a mile broad, with a fine sandy bottom, and with such an easy declivity, that persons may walk with safety and facility three hundred yards, till the water reaches up to their chin; and repeated trials shew, that in scrophulous cases this bathing has performed complete cures, when all other methods, ordinary and extraordinary, had been used without success (*b*). This healing quality of the lake has been known now about fourscore years, has maintained its credit upon the strictest enquiry; and a very learned and ingenious person in that island has given so fair, and so probable an account of the causes whence these sanative virtues are derived, as may satisfy the most rigid enquirer (*c*); so that the evidence of reason being now added to the testimony of experience, we may reasonably hope that, the credit of these waters being thoroughly established, their salutary effects will become more and more extensive. To this we must join, as nearly related in virtues, the waters of Lough Lheighs, in the county of Cavan, and province of Ulster (*d*), formerly in very high credit for curing the scurvy, and all kinds of eruptions on the skin, by bathing only. It is very remarkable that the waters of both these loughs, upon the strictest examination, discover nothing in them peculiar or different from the waters of other loughs; which, as we have before hinted, ought not to disparage them, since experience is the only proper test of their virtues; and if they actually heal, though we cannot at present tell how they heal, this ought to excite our further enquiry; and, if there be no defect in the proof, should by no means induce us to dispute the fact. It may not be amiss here to remark, that the skilful in Irish etymologies tell us, that Lough Neagh (of

(*a*) Ancient and present State of the County and City of Cork, book iv. chap. ii. p. 277. — (*b*) Mr. Nevile's Observations upon Lough Neagh, added to Boat's Natural History of Ireland, p. 120. — (*c*) Lectures in natural Philosophy, designed to be a foundation for reasoning pertinently upon the petrifications, gems, chrystals, and sanative quality of Lough Neagh in Ireland; and intended to be an introduction to the natural history of several counties contiguous to that lake, particularly the county of Ardmagh, by Richard Barton, B. D. Dublin, 1751, 4to. Lecture v. — (*d*) Ancient and present State of the County of Down, chap. viii. p. 159.

which

which we shall have occasion to speak again) signifies the ulcer lough, and Lough Lheighs, the medicinal or healing lough (*e*). Undoubtedly tradition, more especially popular tradition, is very far from being convincing evidence; but at the same time it is good ground for enquiry, and more especially in the present case; for the old Irish had a great turn to physic, were diligent, if not skilful, observers of the properties of waters, and transmitted their notions about them to posterity, by the imposition of suitable names in their own language (*f*). It is not improbable that the monks, availing themselves of this kind of knowledge, converted it to their own profit, by the invention of idle legends; and when this superstition was seen through, it is also not at all impossible, that even learned and sensible persons were too hasty in rejecting in the gross, and, without sifting, the sanative virtues ascribed to certain waters (*g*), which will appear still the more likely, if we consider, that in this country as well as in England and Scotland, it has been found that springs, which upon experiment have proved to be impregnated with minerals, were anciently in high esteem under the title of holy wells, and their virtues ascribed to the intercession of particular saints.

THE number of lakes, or of loughs, as they are called in this country, is indeed very great; and there are enough in every province, though more in Ulster and Connaught than in the other two. The division of them into salt water and fresh water loughs, is liable to the same objection, in respect to the former, that has been mentioned, as to those in North Britain; since they are plainly arms of the sea, such as Lough Swillie, Lough Foyle, and Lough Conne, in the province of Ulster; which very probably might be at first only breaches into the land, by which the vallies were left full of salt water, when they were very properly stiled loughs; and this appellation they have since retained, notwithstanding the sea banks being broken or worn away, by which they have now an open communication with the ocean (*h*). The fresh water lakes, are some of them also, no more than expansions of rivers, of which one remarkable instance shall suffice. The Shannon, rising in the county of Leitrim, after running a few miles, diffuses itself so as to assume the name of Lough Allyn; issuing from thence, with a much fuller stream than it entered, after a progress of several miles, it again expands its waters so as to form Lough Eske, which, though of considerable length, is not very broad. Passing from thence, it forms another lake, called Lough Ree, fifteen miles long, and five broad. On its exit from this lough,

(*e*) This we are very modestly told by Mr. Charles Smith, in his History of the County of Down before cited. p. 159. — (*f*) Helmontii confessio Authoris, Amstelodam. Elziv. 1648, p. 13. — (*g*) See the second Section of the seventh Chapter of Doctor Gerard Boet's Natural History of Ireland. — (*h*) Camdeni Hibernia, p. 762. Boet's Natural History of Ireland, chap. ix. §. 3. Baxteri Glossarium Antiquitatum Britannicarum, p. 23.

it appears a large and beautiful river; till breaking forth again, between the counties of Tipperary and Clare, it forms Lough Derg, or Derke, eighteen miles long, and four broad. Leaving this, it rolls with a full and mighty stream for many miles, and falls at length into the sea, about fifty miles below Limerick (*i*), at a place called Knock Patrick, with so vast a body of water, that this also has been stiled a lough, though it is now simply called the Shannon, or the water of Shannon, which Camden interprets Shan awn, the old river; but Baxter inclines rather to Seen aun, in the old British Synn avon, i. e. the flow river. The whole course of the river, is upwards of two hundred miles, and it is said to be seven miles broad at the mouth (*k*). This agrees exactly with what we hinted as to the origin of lakes, in speaking of those in North Britain; nor would it rest, at least in this country, on the mere probability of the conjecture, if we could place any dependence on the traditionary memoirs of the ancient Irish, which expressly say, that when this island was first inhabited, there were but three lakes and ten rivers, the names of which are preserved in certain old verses in their own language (*l*). However that matter might be, there are at present so many, that the bare history of them might make a considerable volume, the contents of which would be equally curious and useful; and as the spirit of enquiry is at present so strong, and there are so many industrious and judicious writers in that country, we have reason to hope that it will be speedily undertaken, and none at all to doubt, that it will be perfectly well executed.

SOME of these are distinguished by their extraordinary size. Lough Neagh is twenty-four miles long, fifteen broad, in some places; in others from ten to twelve, and sixty in compass, covering, according to the best computation, one hundred thousand acres (*m*). This lough lies in the heart of Ulster, surrounded by the counties of Tyrone, Armagh, Down, Antrim, and Coleraine. It is fed by six very considerable rivers, four of lesser note, and several brooks; so that it is an immense body of water, and is yearly enlarging itself, as in the winter season it overflows the bogs round it, acquires part of them, and extends also its marshy dominion on every side (*n*). Lough Corbes, in the province of Connaught, and county of Galway, is held by some to be, in this respect, the next. It is twenty miles long from north and south, and at the upper end of it broad, but grows narrower, so that its middle breadth is about

(*i*) Speed's British Empire, fol. 143. Boat's Natural History of Ireland, chap. viii. §. 1. Baxteri Glossarium Antiquitatum Britannicarum, p. 125. — (*k*) Camdeni Hibernia, p. 755. Boat's Natural History of Ireland, chap. viii. §. 1. chap. ix. §. 4. 5. Baxteri Glossarium Antiquitatum Britannicarum, p. 215. — (*l*) Ancient and present State of the County of Downe, p. 157 — (*m*) Boat's Natural History of Ireland, chap. ix. §. 4. — (*n*) Ancient and present State of the County of Downe, p. 155. A Dialogue concerning some Things of Importance to Ireland, p. 11.

four miles (*o*). Lough Erne, in the province of Ulster, and county of Fermanagh (*p*), is also very large; but, properly speaking, here are two loughs, the one lying north and south, joining the other, which lies east and west, by a small canal; and from this last there runs a river into the sea. The first of these loughs is full twenty miles long; the latter about fifteen; their breadth, at a medium, about ten. Lough Fingarrow, in the same province of Connaught, dividing the counties of Mayo and Roscommon, is a most noble piece of water, being twelve miles long, and almost every where eight miles broad (*q*). The last we shall mention of these large lakes is Lough Melk, in the same province, lying between Lough Fingarrow and Lough Corbes, and at a very small distance from each. Lough Melk is ten miles long, and six broad (*r*); but there is a large tongue of land which runs into it from the south, and divides it for several miles into two parts, which tract of land, in process of time perhaps, may become an island.

THERE are several of these loughs that deserve notice, from the number of islands that are in them. Lough Erne is held, in this respect, to exceed the rest, as having so many small and great that they are scarce to be reckoned. Some of these are well inhabited; and most of them afford excellent pasture for cattle, with which they are well stocked. Lough Dirg and Lough Ree, which have been already mentioned, have also many of these, and some of them finely cultivated. Lough Conne, which we have before observed, is, properly speaking, an arm of the sea, was reputed to have no less than two hundred and sixty such islands (*f*); at present there are fifty-four known by particular names, beside others that have none; some of the former are very considerable, one of a hundred acres of land; and in the whole upwards of a thousand acres (*t*). The most celebrated, however, of this class is Lough Lene, near the town of Killarny, in the county of Kerry, and province of Munster, of which we have two particular descriptions that represent it as a paradise in the midst of deserts (*u*). This lake is of a regular oval form, eight miles long and four broad, surrounded by some of the highest mountains in Ireland. But most of these are covered with trees of different kinds, and afford the most delightful and romantic prospects (*w*). In the lake there are many islands of different sizes, some of which are very oddly shaped; some that are mere marble, not as in a

(*o*) Boat's Natural History of Ireland, chap. ix. §. 4. — (*p*) Camdeni Hibernia, p. 763. — (*q*) Boat's Natural History of Ireland, chap. ix. §. 4. — (*r*) Camdeni Hibernia, p. 757. — (*f*) Boat's Natural History of Ireland, chap. ix. §. 5. — (*t*) Boat's Natural History of Ireland, chap. ix. §. 5. Ancient and present State of the County of Downe, p. 153, 154. — (*u*) A full description of upper and lower Lough Lene, near Killarny, in the county of Kerry, Dublin, 1751, 4to. Description of a beautiful lake near Killarny, in the county of Kerry, in a letter to the Reverend Doctor Samuel Madden, in the Gentleman's Magazine for Nov. 1750. — (*w*) Description of upper and lower Lough Lene, p. 9.

quarry, but as if heaped together in loose slabs; and yet these islands are covered with trees, which grow and flourish without earth (*x*). Others have mines in them; and there want not those that are prettily cultivated with pleasant gardens, adorned with the *Arbutus*, which is a native of these isles, and remarkable for bearing, like the orange tree, leaves, blossoms, and fruit at the same time (*y*).

THERE are Loughs likewise distinguished by some peculiar properties. We have already mentioned two, the waters of which afford natural and very salutary baths. The petrifying quality of Lough Neagh (*z*) was long a subject of great perplexity and dispute; affirmed by some; denied by others (*a*); ridiculed as an idle fable by many (*b*); but at last the fact has been fully established from incontestible evidence, and so thoroughly, clearly, and amply explained, by the before-mentioned very judicious author, that, in this respect, we have nothing more to desire (*c*); and it would be very happy, if other things of a like dubious nature could be examined with the same industry and skill as this has been, by which many valuable purposes might be answered, and the empire of science extended far beyond its present bounds. In the island of Cape Clear, at a small distance from Baltimore Haven (*d*), there is a little Loch, the waters of which having a detergent and saponaceous quality, the inhabitants, who are very poor, and live almost in a state of nature, apply them certainly to the best purpose possible, the washing and cleansing their flax, of which they grow a great deal for their narrow territory. Loch Erin is a small water in the county of Down (*e*), but of a prodigious depth, plentifully stored with pike, trout, eels, roach, and bream. It is singular for producing the three first sorts of fish of an uncommon size. Pikes of twenty-six pounds weight; and yellow trouts, little inferior in flavour to the char, of twelve pounds weight. Near Mohanagh, the seat of Roger Fenwick, esq. in the barony of Carbery, and county of Cork (*f*), there are two small lakes, that in the hardest winters never freeze. They are very deep, and produce likewise trout of an unusual size. We may add to these the two Cumme Loughs in the mountainous part of the county of Waterford (*g*), in which we are assured there are very fine char. The same thing is affirmed of Lough Allua in the county of Cork (*h*),

(*x*) Gentleman's Magazine, vol. xx. p. 506, 507. — (*y*) *Arbutus* Ger. Park. *Arbutus Comarus* Theophrasti J. B. Arb. folio serrato C. B. The Strawberry Tree. — (*z*) Nennius de mirabilibus Hiberniæ. O Flaherty, Ogygia, p. iii, cap. 1. — (*a*) See Mr. Molineux, Mr. Neville, and Mr. Smith's papers on this subject, at the end of Boat's History, Dublin, 1727, 4^{to}. p. 16, 123. — (*b*) Ancient and present state of the county of Downe, p. 160—166. — (*c*) Barton's Lectures in natural philosophy, more especially the fifth. — (*d*) Ancient and present state of the county and city of Cork, book ii. chap. 4. p. 289. — (*e*) Ancient and present state of the county of Downe, chap. viii. p. 150. — (*f*) Ancient and present state of the county and city of Cork, book ii. chap. 4. p. 264. — (*g*) Ancient and present state of the county and city of Waterford, chap. vi. p. 69. — (*h*) Ancient and present state of the county and city of Cork, book ii. chap. 2. p. 199.

and of many other Loughs in Ireland, which, from the description of the fish, the nature of the places, and the water Gladiol being found plentifully in these Loughs, and more especially in Lough Neagh, renders it highly probable; and this very much strengthens what has been before advanced upon this subject. It is true, we are told from experience, that these fish will not live in a running water, and that they die before they can be transported to any distance (*i*). Yet these are no unsurmountable obstacles, since it was not proposed to propagate this delicate fish in any other than deep lakes, and carrying their spawn thither might answer this end, if properly and carefully managed: but it must be expected that those who have them from the gift of nature, will represent every thing of this kind, if not as absurd, at least as scarce practicable.

WE have before mentioned the utility of lakes in furnishing fish and fowl, which may be reckoned necessities in some cases, and in all conveniencies. The sense of this has ever been strong in Ireland; for near these Loughs the ancient inhabitants fixed their habitations; to these they resorted in time of peace, for pleasure; in times of danger, for protection (*k*). Their conquerors seem to have adopted their notions, by building towns on the sides, or in the neighbourhood of great Loughs, and their country seats at a competent distance from small ones (*l*). They have had a view also to their use in manufactures. It has been proposed, and with great propriety, to take advantage of those inlets of the sea, improperly called Loughs, to facilitate the making of salt. What wonder indeed, when, in the open cavities of the pillars that form the Giants Causeway, they every summer's day find small quantities of salt made by the mere operation of the sun's heat upon the sea water (*m*)? Supposing this practicable, as no doubt it is, they have justly thought that it would promote the curing those immense quantities of fish which are continually taken in their lakes, particularly eel and salmon: of both which they already export a great quantity. They have likewise experienced the excellence of lake water in bleaching; and this has turned highly to the advantage of Armagh, and other places (*n*). The like practice occasioned the fields near Lithgow, in North Britain, to become famous on this account. But, exclusive of these smaller advantages, the capital point of rendering the lakes useful to inland navigation, has been always, at least in theory, confessed and considered here. The great Earl of Strafford had in view the improvement of the Shannon, by removing the difficulties arising from a rock six miles above Limerick; and though his design, upon examination, appeared very prac-

(*i*) Mr. Charles Smith, in the place last referred to. — (*k*) Some of these old Castles are yet standing, and the remains visible of many more. — (*l*) Boat's Natural History of Ireland, chap. ix. § 5. — (*m*) Doctor Samuel Foley's account of the Giants Causeway, in the appendix to Boat's history. — (*n*) See the dialogue on some matters of importance to Ireland.

licable, and the expence within the compass of eight thousand pounds, yet as the public only was to be the gainer, his plan could not be carried into execution (*o*). The Canal of Newry, made within these few years, at the expence of upwards of fifty thousand pounds (*p*), by which vessels of the burthen of sixty tons have been brought into Lough Neagh, is a most noble work (*q*), and if, what was long ago recommended, the facilitating the communication of the same Lough with the Ocean, by rendering the lower Ban navigable, could be accomplished at a much larger expence, the benefits that would result to Ulster in particular, and to Ireland in general, would be very cheaply purchased (*r*). The truth of the matter is, and this truth will occur to any judicious person who considers the map of the island, that by the help of a little industry, an inland navigation, by enlarging the channels of some rivers, cutting a few canals, and by the junction in consequence of such helps of these deep Loughs, might be brought about as commodious in its own nature, and as advantageous to the inhabitants, as any thing of the like kind in Irelanders, or indeed (China not excepted) in any part of the world (*s*). This, we are told, the parliament have at present in their view; and this, whenever it shall be thoroughly accomplished, will justify the length of this chapter, and shew that the pains we have taken upon this subject have not been ill-bestowed, or improperly applied (*t*). A circumstance that will amply compensate such, and even greater labours. For although these are points that may be already sufficiently known to many there, and to some here, yet it is of very great consequence they should be concealed from none, since the prosperity of the three kingdoms most certainly depends upon every man's forgetting that he is a native of one, and embracing with equal ardour the interest of any of the rest, promoting, as far as in him lies, the improvement of each of them, because, in the issue, whatever advantages arise from thence, must arise to the common interest, which belongs alike to all.

THERE is, however, an objection that may be made, and made with such plausible colours, that I think it my duty to state it fairly, and answer it clearly. It may be said that there is something of contradiction in treating of lakes as blessings, which are generally considered in quite another light, and which, in some respects, we have considered likewise in that light, and attributed them, so considered, to inundations from the sea, the want of industry in the people, their rude uncivilized way of living, and other accidents. This we cannot

(*o*) Boat's Natural History of Ireland, chap. viii. §. 2. — (*p*) Barton's Lectures in Natural Philosophy, p. 146. — (*q*) Ancient and present state of the county of Downe, chap. iv. — (*r*) See the state of the case of Lough Neagh and the Bann, 1733, by Doctor Hutchinson, then Lord Bishop of Downe and Connor. — (*s*) This point will be more largely considered in a succeeding chapter. — Ancient and present state of the county of Downe, chap. iv. p. 119.

but in some degree admit. But then, the different circumstances collected, the matter stands thus: These accidents have happened long ago by the permission of Providence; and however detrimental they might be to such as in those days inhabited the countries where they happened, if indeed they were then inhabited at all; yet, notwithstanding this, all circumstances considered, they may be and certainly are, convenient, as they stand at present (*u*). In a country but thinly inhabited, and where of consequence it is difficult for the industry of men to procure a comfortable subsistence, lakes, as we have observed, by furnishing fish and fowl, and very often from the marshes round them, fuel also, may contribute to it (*w*). As the number of people increases, and with it the strength and power of the society, they may, as we have shewn, by a proper application of force, directed by wisdom, draw from them farther and much greater conveniences (*x*): And when, by doing this, their condition is become still better, and their numbers greater, where-ever the lesser lakes are found, upon such a change of circumstances, to be no longer conveniences, they may be drained, and the dry land thus recovered, will not be found the worse for having been in that state; for, on the contrary, experience shews us, that where lakes have been drained, there have been found in the soil itself materials necessary for improving them (*y*). Thus it appears that the whole representation of this point, when taken together, and the connection of its parts considered, is very consistent; and that, as the circumstances of mankind alter, industry and application enables them to extract new benefits, from the dispositions made by the Supreme Being in the countries where he has placed them.

As to fens, morasses, and bogs, which, though attended with some trifling advantages, are real evils, they will be considered in their proper place, and in their proper light too, as the punishment, if not the effects, of human idleness, and which as it is in the power, so is it also the duty of men to remove (*z*). This we have all the reason in the world to expect will in this country be affected, gradually indeed, but in no very long tract of time; since the methods of doing it are perfectly well understood, the profits arising from it known from many instances (*a*) most of the obstacles removed that formerly dissuaded such attempts, other collateral improvements encouraging by rendering them more requisite, and, as there never was an age, in which men were more awake to their own interests, we cannot imagine they will overlook what will turn

(*u*) See Barton's dialogues concerning some things of importance to Ireland. — (*w*) Boat's Natural History of Ireland, chap. ix. — (*x*) Of which some instances have been, and many more might be given. — (*y*) See Archbishop King's excellent discourse of the bogs and loughs in Ireland, presented to the Dublin Society. — (*z*) Boat's Natural History of Ireland, chap. xiv. — (*a*) Essays by the Dublin Society, p. 75 — 85.

so immediately, so certainly, and so exceedingly, to their advantage. But, exclusive of those benefits that will arise to individuals, and which are the strongest motives to such improvement, there are many national conveniencies that will necessarily attend them, such as increasing the number of villages and towns, introducing new methods of cultivation, and, in consequence of this, mending not only the water (which however would be an inestimable blessing) but also the weather and climate (*b*). Things of such consequence, and so desirable, that, without question, public encouragement will be given in cases where private emolument may not invite, or where the necessary expences may be too large for private fortunes. But we must not conclude from these remarks, which are applicable to the northern part of our own island, as well as Ireland, that these countries are fuller of lakes than any other; for the very contrary is certainly true. A German writer (*c*) has reckoned upwards of two thousand in Prussia only; and in the island of Hispaniola there are even above that number (*d*); besides that, in both these, and in many other places, the greater part of them are absolutely standing waters, of which we have very few, and of consequence are not exposed, even as things are at present, to the malignant vapours which rise from such stagnant pools; with the idea of which the imagination is naturally struck, upon the very mention of lakes; and from a consciousness of which we thought it necessary to observe, that most of ours have either rivers running from or running through them, and very frequently both.

WHATEVER errors, omissions, or defects may be discovered in this succinct essay, as I am but too sensible there are many, I flatter myself they will not discredit the design of making it. I am thoroughly convinced, that, however copious it may at first sight seem, many more heads might have been added. Instances on all that have been treated might have been multiplied, and perhaps better chosen, at least better explained, and a variety of incidental advantages introduced, and stated in a stronger light. But my purpose was to make good my proposition, by producing facts; to this I principally attended, and have supported those facts by the best authorities I could meet with. What helps I have borrowed from Natural History are to be considered in this view, as auxiliaries only, in which I have no desire of obtruding systems or opinions, but barely to represent things as they appear to me. If my readers are inclined to enquire farther, the authors I have cited will furnish them with the means; and from those lights perhaps they will be able to judge better. If it is allowed me, that I have effectually proved these three kingdoms are most admirably and abundantly supplied

(*b*) Plin. Hist. Nat. lib. xvii. cap. 4. Boet's Natural History of Ireland, chap. xxi. §. 6. — (*c*) Christopher Hartknoch's History of Prussia, ancient and modern, p. 11. — (*d*) Charlevoix Histoire de St. Domingue, liv. i.

with water ; (for it is one thing to affirm, and another to prove) if I have shewn, that, from the qualities of very remarkable springs, that it is highly probable there is a great diversity of soils, and consequently room for a multitude of improvements ; if what I have suggested has any weight with regard to the beneficial consequences that may follow from a circumspect observation of the countries about mineral springs, and their produce, which may lead us to form at least more probable conjectures, as to what is contained in the bowels of the earth, than can be done at present ; if I have in any degree vindicated those collections of this fluid, that have been, generally speaking, considered in a bad light, and have made it evident, that under some circumstances, and in a certain state of things, even stagnant pools have their conveniencies, which, whenever they cease to have, or greater benefits can be proposed from thence, they may be removed ; if, I say, these, or any of these, be in some measure effected, I am entirely satisfied, from a thorough persuasion that I have been usefully employed.

BUT, after all, this important point will be very imperfectly treated, if we do not put the reader in mind, that the vast benefits resulting from the copious distribution of this fluid, are not to be collected from instances either of particular or local advantages, but must be farther pursued, and considered in its freest state ; for what comparison is there between all the conveniencies already mentioned, though, simply considered, immensely great, and those that are derived from water diffused, and taking its passage through the earth in all the various ways that different situations lead it (*e*) ? Water, in the common acceptation of an element, has numerous excellent qualities that are inexpressibly beneficial ; and these perhaps are augmented even in regard to common, as well as medicinal uses, by their being blended and tinged with mineral springs ; for though the subtle spirits of these waters should escape, as very probably they do, soon after their coming abroad, and being exposed to the open air, yet some of their contents they still retain, and carry along with them ; so that when we consider the number of these salutary waters ; when we reflect that most of them have been discovered by accident, and that consequently, though so many be known, there may be many more still latent, even to the most diligent enquirers ; when we meditate on their nature and properties, and the causes from which these arise, we may easily conceive that they preserve many of their distinguishing qualities in their passage to other repositories of water ; and that of course, therefore, every little rill and brook will have its share of these, in proportion to the quantity of such water that it receives. In some

(*e*) *Theologie de l'Eau, ou Essai sur la Bonté, la Sagesse et la Puissance de Dieu, manifestées dans la Création de l'Eau. Traduit de l'Allemand de Mr. Jean Albert Fabricius, Docteur en Théologie & Professeur au College de Hambourg. Avec de nouvelles Remarques communiquées au Traducteur. A la Haye, 1741, 80.*

cases also this may prove much more considerable than one could easily imagine, since we are told by an inquisitive and diligent author, from his own immediate observation (*f*), that St. Anne's Well, at Buxton, throws out no less than three hundred and ninety gallons in an hour; or three millions, four hundred sixteen thousand, and four hundred gallons, that is, upwards of thirteen thousand, five hundred, and fifty-seven tons, in a year. He farther assures us, that in this quantity of water there are six hundred seventy one gallons of salt; and as much calcarious powder. In like manner he computes the quantity of salts ejected from the baths at the same place, to be very nearly seventy thousand pounds weight in the compass of a complete year. Hence we may easily apprehend what difference there may be in the weight of waters. Hence we may account for their hardness and softness, and other different qualities; such as their disposition to ferment or not ferment, and their fitness or unfitness for all kind of domestic uses, such as drinking, washing, and brewing.

As all kinds of vegetables are nourished by water, so from its inherent properties it will contribute more or less to fertility, and all the purposes of culture. Hence also, according to their different natures, waters become peculiarly beneficial in various kinds of manufactures, such as cleansing of wool, or bleaching of linen; in respect to which last, we have a most perspicuous treatise, which does honour to its author, and our country (*g*). Thus the absterfve quality of a certain stream is so highly serviceable in the manufactory of blankets at Witney in Oxfordshire (*h*); and thus a great variety of waters have been found, by experiment, to have very singular, and, to those acquainted with them, advantageous effects in dyeing; and this may likewise be much heightened by art, as is evident in regard to the striking some particular colours, with remarkable beauty, at Leyden, in Holland (*i*). To all this we may add the innumerable benefits that result from small rivulets, merely through the progressive force of their waters in respect to engines of all kinds, such as mills, forges, with an infinity of other inventions which lessen the labour of men, save the maintaining beasts, and yet do as much as could be done by both; and therefore we cannot fail of discerning what prodigious conveniencies are derived from an abundance of these self-moving streams (*k*); and that we may apply such arguments more immediately to these kingdoms, it may not be amiss to observe, that in some editions of Camden (*l*) there is a table, from which it appears, that in the several counties of South Britain only, there are upwards of five hundred and fifty rivulets and rivers

(*f*) Short's History of Mineral Waters, p. i. p. 48, 49. — (*g*) The title of this ingenious performance runs thus, "Experiments on Bleaching, by Francis Home, M. D. Fellow of the Royal College of Physicians in Edinburgh, Edinburgh 1756, 8vo." — (*h*) Doctor Plott's Natural History of this County, chap. ii. p. 26. — (*i*) Boerhaave's Chemistry, translated by Doctor Shaw, vol. i. p. 464. — (*k*) Harrison's Description of Britain, book i. chap. 11--16. — (*l*) More especially that in Folio of 1605, which was the last published by himself.

distinguished by particular names ; and though not exactly in the same manner, yet in regard to such a copious supply of water as may, in all the methods hitherto mentioned, contribute to utility, North Britain and Ireland fall little, if at all, short.

To conclude, it is with respect to countries as with the fortunes of private men, we can form no just notion of them either from common report, or from a hasty or superficial view ; if we will really know any thing so as to reason with tolerable certainty concerning either, it is necessary to enter into a strict and particular examination (*m*). A strong impression that a country is immensely fruitful, rich, and opulent, and has many and vast resources ; taken up without due consideration, has just the same sad effects in reference to the people who inhabit such a country, as it would have in regard to an individual supposed to possess a prodigious estate. It leads headlong to every exorbitant expence ; and, in consequence of this, in process of time to a general dissipation, on a supposition that care is unnecessary, and that there is something mean and contemptible in a minute inspection into every branch and article of our possessions. This error, when it once prevails, gains a degree of credit very surprising ; for whoever endeavours, from a true principle of public spirit (and no spirit but this can induce any man) to endeavour to correct it ; subjects himself immediately to be thought officiously industrious in enquiring into what is sufficiently well known ; though in reality the dislike arises, from the fear of his discovering motives for a change of measures, and the introduction of caution, prudence, and œconomy. To speak candidly, the humours of men are not more irrational or whimsical than the disposition of nations (*n*). There is a forwardness to look abroad, and a backwardness to attention at home, discernable alike in both cases. We all esteem travelling into foreign countries as a very necessary part of education ; but we hardly ever think, at least in this light, of travelling through our own (*o*). So easy a matter it is to deceive ourselves in great as well as in little things, to ascribe to some noble principle a very idle practice, and to attribute to the desire of instruction, what in reality is following the bent of inclination (*p*).

KNOWING ourselves, is the leading principle, and the great foundation, of morality ; knowing our own country, is the solid basis of true policy. Providence has so ordered, that such enquiries as contribute to practical and useful knowledge are the easiest made ; and hath placed the means of making them at hand. We must be acquainted with things, and have a just conception of their natures, before we can pretend to compare

(*m*) See the preliminary Discourse to Marshal Vauban's Proposal for a Royal Tythe. — (*n*) The learned Barclay has shewn this in several of his works, but more especially in his *Icon Animarum*. — (*o*) Consult those excellent Instructions to Travellers, which have been lately given to the public by the ingenious and candid Doctor Tucker. — (*p*) The great Lord Treasurer Burleigh was so well aware of this, that, during his administration, no man of family was suffered to travel without a special licence, which he never granted till he had examined, and knew, that they were thoroughly acquainted with England.

them; and when the former is once obtained, the latter may be performed with ease and certainty. Attention to these maxims rendered so strict an enquiry into the plenty and distribution of water through the British dominions, our first care. The having it, in abundance, is the gift of Providence, which merits national gratitude and thankfulness; for the want of it, not either human power or skill can supply. The distribution of it indeed is somewhat more under the dominion of mankind; as the works that still remain in Egypt, of those who with infinite labour rendered that country fruitful, which had been otherwise scarcely habitable, evidently shew (*q*). The modern husbandry in Lombardy is another proof of the same kind (*r*); and the almost innumerable uses to which water is applied in some of the seven provinces, is a still stronger instance of the benefits that may be drawn from it (*s*). But where this labour is saved by such a natural distribution of water as places it every where within our reach, and yet restrained within proper bounds, so that we stand alike excused from the laborious task of bringing it from great distances, and the perilous necessity of guarding against its ravages, from its natural situation, greatly enhances this blessing, sets the happiness of these countries in a much stronger point of light, and justifies our endeavour to shew from facts that this is really the case, and that we do not, in this respect at least, amuse ourselves with imaginary advantages. To be acquainted with what we really have, is the first and most necessary step to making a right use of it; and to have an adequate and just notion of the value of the natural prerogatives of our country, is the next; for not to know the value, is in some degree to lose the possession; and not to improve it, is the natural and destructive consequence of such a forgetful indolence. The possession of this, of which we have been speaking, is equally necessary to the smallest family, and to the greatest state: the former cannot live; the latter cannot subsist without it. It is the great principle of fertility; one of the most potent instruments of art; the basis of society and commerce; the subject that operates the most effectually in giving ornament, beauty, and delight: in a word, this fluid is the pregnant source of convenience or inconvenience, according as it is in the power or not in the power of human industry to command; and therefore, in a political survey, it will ever lay claim to the earliest and to the closest attention.

(*q*) Deuteron. xi. 10, 11. Diodor. Sicul. Biblioth. Hist. lib. i. p. 21. Sandys's Travels, book ii. p. 120, 121. Voyages de Thevenot, tom. ii. p. 390, 391. Voyage du Sieur Paul Lucas, tom. i. p. 328, 329. — (*r*) Ray's Travels, vol. i. p. 176, 191, 205, 213, 333. Addison's Travels, p. 130, 131. It is by the judicious management of water the meadows about Parma and Lodi are rendered so luxuriant, that the cattle fed in them produce rather cream than milk, of which that cheese is made, which, if not superior, is at least equal to any in Europe. — (*s*) The inhabitants of these countries not only make use of water to drive mills for grinding corn, rapeseed, gunpowder, &c. but also for sawing deals, threshing corn, and many other uses. The women too have machines for wringing wet clothes, &c. and this not through idleness, but because the dearness of labour obliges them to make it go as far as possible, by adding to it the cheap and easy assistance of engines driven by small streams.



CHAPTER VI.

NAVIGABLE rivers the sources of power and plenty. By them, in their course, domestic trade is sustained. The mouths of them supply havens that attract foreign commerce. The number of such rivers becomes therefore a measure of national grandeur. Parallel in this respect of England with France. Succinct account of the four great rivers in that kingdom, and a comparison of them with four British rivers. Apology for, and justification of, this parallel. A concise account of the six great rivers in Spain. An account of English rivers and ports, which, in point of improvement, navigation, and commerce, may be opposed to these. The remainder of the rivers on the west and south coasts of this island, and their principal ports, enumerated. Observations upon these concise catalogues of rivers and harbours. The like detail of rivers and havens in the principality of Wales, with some necessary remarks arising from this review. The navigable rivers, and ports which they afford in North Britain, briefly stated and considered. The same subject in respect to Ireland succinctly represented, with a few occasional notices as to the natural advantages and vast importance of that island. The application of the whole to the design of this work.

THE numerous benefits resulting from a country being every-where well watered, which have been insisted upon in the foregoing chapter, are in some measure of a private nature, in comparison of those which are to be the subject of this. Large, fair, and navigable rivers, are commonly the result of accumulated streams, which meeting in their progress to the deep, roll on in a common channel, and thereby afford new, and, beyond comparison, greater blessings to society, than in their separate state. Of these, it may be proper to mention two or three instances, which though in themselves obvious enough, yet are so requisite to render the scope of this work perspicuous and satisfactory, that we ought not to pass them by.

In the first place, these rivers conduce exceedingly to health, cleanliness, and an infinity of domestic uses; for which reason, invited by the desire of enjoying these conveniencies, most great towns and populous cities are seated on the banks of such rivers; and very frequently the experience of those advantages arising from such a situation, gradually swell a small place into a great one (*a*). It is partly from the number, partly from the disposition and qualities of such rivers, that a speedy and commodious communication is made between different and distant parts of a country, by which the inhabitants receive reciprocally the comfort of their respective possessions, whether flowing from the bounty of Providence or the effects of industry; and by an exchange of commodities, render partial and parti-

(*a*) Strabonis Geograph. lib. v. p. 235. M. Vitruv. in præf. lib. ii. de Architect. Aul. Gel. Noct. Attic. lib. x. cap. 7.

cular improvements the source of universal abundance. This circulation of goods and manufactures, through the whole extent of a large country by navigable rivers, constitutes inland navigation. An eminent national prerogative, which, as we shall copiously explain in its proper place, is of infinite consequence, and, where properly attended to, and encouraged, productive of numberless emoluments to a people; as, at the same time that it excites their industry, it mitigates their labour, and invites them to the exercise of manufactures of every kind, by offering so cheap and so expeditious a method of conveying them, even to the most distant markets (*b*).

THERE is yet another point which we must bring to the reader's memory, which is, that commonly where these great rivers fall into the sea, or frequently where they begin to open and expand themselves, when drawing towards it, they furnish capacious and convenient ports for ships of great burthen, and conduce thereby as much to foreign commerce, as in their long and winding course they had before contributed to domestic trade, or the intercourse of the natives with each other. (*c*) It appears from hence, that the best method of estimating the advantages which any country enjoys in this respect, is by considering them in a comparative view with those of its neighbours and competitors; since, thus considered, it must not only be set in a fair and full point of light, but in such a one also, as will render it undeniably manifest. In this therefore, for these reasons, we will endeavour to consider it with all the candour and impartiality possible, and with as much conciseness as the nature of this method, and our intention in pursuing it, will possibly or properly admit.

WE find the French writers insisting warmly, and with just reason, on the very advantageous situation of their spacious and fertile country, and on the circumstances which render it particularly commodious for domestic trade, and foreign commerce, as having the British channel on the north, the ocean on the west, and the Mediterranean on the south. They boast likewise, that no country in the world is better watered; and this, Papire Masson, a learned Frenchman, wrote a book to prove, in the last century, in which he describes all the rivers of that kingdom (*d*). There cannot therefore be any thing more to our purpose than to examine this point concisely, in order to see how well the claims of both countries in reference to rivers conducive to commerce are supported, due respect being had to the size of the one, and of the other. In France, as their own writers say, there are four great rivers, that in their passage through their numerous provinces absorbing most

(*b*) Bacon's Works, vol. i. p. 724. Varenii Geograph. universalis, §. iv. cap. 16.
—(*c*) P. Fournier Hydrographie, lib. iv. chap. 14. Bacon's Works, vol. i. p. 724.
Montesquieu, de l'Esprit des Loix, p. ii. lib. xxi. chap. 4.—(*d*) Descriptio Fluminum Galliarum, opera P. Massoni, cum notis, A. M. Baudrand, Parisiis, 1685.

of the rest, carry immense supplies of water to the before-mentioned seas (*e*).

THE first of these is the Loire, esteemed the largest river in France, and so dividing it, that on this, and on the other side of the Loire, is an expression common, more especially in their ancient historians (*f*). The source of this river is in the mountain of Gerbier le joux, on the confines of the Viverrais and Velaie, it runs through the generalities of Montpellier, Lyons, Moulins, Orleans, Tours, and falls into the sea at Bretagne, forty-five miles below Nantes, which is its principal port. In its course it receives six large, and many small, rivers, runs in a direct course three, and by its windings and turnings, as it is computed, about five hundred miles (*g*).

To this we oppose the Trent, which rises out of New Pool, in conjunction with two springs, near Mole Cap and Harton Hay, in Staffordshire; after receiving no fewer than sixteen rivers in that county only, passes into Derbyshire; and coasting the edge of Leicestershire, runs with a copious and pleasant stream the whole length of Nottinghamshire; and crossing over a corner of Lincolnshire, falls into that great receptacle of waters called the Humber (*h*), twelve miles above Kingston upon Hull, a town and county of itself, standing on a little river of the same name, which makes its present port; though an application is expected to parliament for one more commodious; and, in point of inland trade, and foreign commerce, not at all inferior to that eminent port of France to which we have compared it (*i*). It derives these advantages, which it would require some pages to set in a full light, from the influx of so many great rivers into this firth from some of the counties most populous, best cultivated, most noted for manufactures, of any in these islands; which consequently bring down immense quantities of bulky, and yet valuable goods, that require much shipping to transport, and produce inconceivable returns from other countries. The direct course of the river Trent is about one hundred miles; what its turnings and windings may be we have not computed. This river divides England into two parts of unequal size, and has thereby created the distinction of south and north of Trent (*k*).

THE second, which is reputed the most rapid river in France, is the Rhone, which however rises without the bounds of that kingdom, in the country of Valais, connected by alliance to the

(*e*) Philippi Cluverii Introduct. Geograph. lib. ii. cap. 12. — (*f*) Luyts introduct. ad Geograph. p. 127. — (*g*) Strabonis Geograph. lib. iv. p. 189. Cæsar, lib. vii. cap. 55. Gregor. Turonens. lib. v. cap. 42. Papire Masson. descrip. flum. Gal. Nouvelle description de la France, par M. Piganiol de la Force, tom. i. p. 3. Coulon Rivières de France, tom. i. p. 241. — (*h*) Leland's Itinerary, vol. vii. p. i. fol. 37. Lambard's Topographical and Historical Dictionary, p. 370. Harrison's Description of Britain, p. 96. Plott's Natural History of Staffordshire, chap. ii. p. 42. Drayton's Polyolbion, twelfth song. — (*i*) Leland's Itinerary, vol. i. fol. 53, 54. Camdeni Britannia, p. 578. Additions to Camden in the English Translation. — (*k*) Plott's Natural History of Staffordshire, chap. ii. p. 42.

Swiss; and having passed through the lake of Geneva, after rolling over a precipice, by which it seems dissipated into a mist, at length enters France; and having washed the city of Lyons, and received the gentle Saone within its banks, continues its progress through Provence; and being joined in its passage by several other considerable streams, falls into the Mediterranean, about twenty miles below Arles, by three mouths, which are stiled le Gras de Sauze, le Gras de Sainte Anne, and le grand Gras. It runs about two hundred and fifty miles in France. The navigation is hazardous with slight boats, which are frequently taken to pieces again when the voyage is over, because of its being exceedingly difficult, if not impracticable, for such to remount the stream (*l*).

AGAINST this we will venture to set the northern river Tine, which, to speak with greater propriety, is a river composed of two streams of the same name, viz. North Tine, which rising at a village called Tinehead, on the frontiers of North Britain, runs south-east about thirty miles, and is then joined by the South Tine; which having its source in Cumberland, almost on the borders of the bishoprick of Durham, runs north-east about forty miles. From their junction a little above Hexham, each being swelled by several little rivers in the way, the Tine passing near the great town of Newcastle, which stands upon its north bank, falls into the sea at Tynmouth, the two rivers having run together about thirty miles (*m*). The coal trade of Newcastle, which is a rich, populous, and thriving place, joined to its dependencies North and South Shields, and taking in likewise the foreign commerce carried on from thence, makes it scarce, if at all, inferior to the French mart, though that is also very opulent (*n*); and these places are the more fit to be compared, because both have been for some time past, and are yet continually improving.

THE Garonne is the third river in France. It rises out of the mountains of Aure, near the valley of Aran in the Pyrenees, and passing through the generalities of Montauban, Toulouse, and Bourdeaux, it receives in its course seven considerable rivers, and the two last cities are washed by its stream. At the point of Ambez it joins the Dordogne, a long, large, and deep river, which however runs by no very considerable place; and from the time of this junction the river takes the name of Garonne; and running with a full broad stream, falls into the bay of Biscay, near the Tour de Cordouan, by two mouths, the one called le Pas des Anes, and the other le Pas de Grave,

(*l*) Strabonis Geograph. lib. iv. p. 189. Liv. Hist. lib. xxi. cap. 32. Plin. Hist. Nat. lib. iii. cap. 4. Papir. Masson. descrip. flum. Gallie. Coulon Rivieres de France, tom. ii. p. 6. Etat & Delices de la Suisse, tom. i. p. 63.—(*m*) Leland's Itinerary, vol. vii. p. i. fol. 65, 74. Harrison's Description of Britain, p. 90. Drayton's Polyolbion, twenty-ninth Song.—(*n*) Leland's Itinerary, vol. v. fol. 103, 104. Camdeni Britannia, p. 667. Additions to Camden.

between forty and fifty miles below Bourdeaux, after a course of about one hundred and eighty miles (*o*).

WE will compare with this the Ouse, which rising near Fretwell, in Oxfordshire, proceeds thence into Buckinghamshire; and passing by that town, which gives name to the county, goes on to Bedford, where it becomes navigable; then having watered this county, it proceeds through Huntingdonshire, Cambridgehire, and the Isle of Ely, into the county of Norfolk, where with a full fraught tide it falls into the sea at Kings, formerly, till exchanged by the bishop of Norwich with Henry VIII. called Bishops Lynn. It receives in its course the river Nene from Northampton and Peterborough; the Cam from Cambridge; the lesser Ouse from Norfolk; and the Mildenhall from Suffolk; all of them navigable rivers; by which most convenient, and, in all seasons, valuable situation, Lynn became, even in early times, a very considerable place in respect to strength and trade (*p*). Yet was it nothing then to what it is now, comprehending, according to the best computation that can be formed, two thousand four hundred families, and in a very thriving condition, deriving from many rich counties behind it all their valuable produce and manufactures, which are from thence sent to London; and supplying them in return with goods from that great city, coals from Newcastle, and whatever else they want from the ports on the east side of the island; and having besides an extensive, and in a great measure (in respect to London) an independent foreign commerce, not only with Spain and Portugal, which has succeeded that which the merchants of this place once had with France, but also to Holland and the Baltic. The entrance of its port, which is so capacious as to hold two hundred sail of vessels, is somewhat difficult and dangerous, but when entered, it is safe and commodious; and for its defence, exclusive of the fortifications round the place, has St. Anne's fort, by which it is at the same time equally commanded and protected. The entire course of this river may be about one hundred miles (*q*).

THE last river in France that we shall mention is the Seine, which has its source a little above Chanceaux, in Burgundy. It passes through the generalities of Dijon, Chalons, Paris, and Rouen. It begins to be navigable at Troyes, the capital of Champagne. In its course it receives the Yonne, the Loign, the Marne, the Oise, and the Eure, some of them not inferior

(*o*) Strabonis Geograph. lib. iv. p. 177, 189, 190. Pomponii Melæ de situ Orbis, lib. iii. cap. 2. Papir. Masson. descrip. flum. Galliar. Nouvelle Description de la France, par M. Piganiol de la Force, tom. i. p. 4. Martiniere Dictionnaire Geographique et Critique, tom. iv. p. 65. — (*p*) Leland's Itinerary, vol. vii. fol. 13. Harrison's Description of Britain, p. 102, 103, 104. Lambard's Topographical and Historical Dictionary, p. 259. Camdeni Britannia, p. 350. Spelmanni Icenia. p. 137. Plot's Natural History of Oxfordshire, chap. ii. §. 17. — (*q*) Leland's Collectanea, vol. i. p. 654. Spelmanni Icenia. p. 142, 143, 144. The History and Antiquities of the flourishing corporation of Kings Lynn, in the county of Norfolk, by B. Mackerell, Gent. p. 2, 3.

in their streams to its own, and several others less considerable. It passes through the midst of the capital of France, makes a most noble and majestic figure at Rouen, which may be considered as the port of Paris, and, in the opinion of some, is the next city to it in size; from thence the Seine proceeds to Havre de Grace, which is again a kind of port to Rouen, where the larger ships are laid up, and where such merchants as are concerned in the fisheries of America, as well as Europe, generally reside. The Seine enters the sea, or, as we call it, the channel, between this place and Honfleur, making an opening at least of nine miles in breadth; its entire course has been computed at two hundred and forty miles (*r*).

THE river in Britain fittest to stand in competition with the Seine, is the Thames. The sources of this famous stream are four rivulets, that rise in different parts of Cotswold hills in Gloucestershire, viz. the Lech, the Cola, the Churne, and the Isis; these having touched Wiltshire, and joined their waters in one channel a little below Lechlade, a town on the borders of Oxfordshire, form a deep and copious stream, which there becomes navigable for very large barges, and is constantly, after it leaves this place, whatever poetical writers may pretend, called the Thames. Thence it proceeds into Oxfordshire; and having visited the city of Oxford, continues to divide that county from Berkshire; rolling by Abington, Wallingford, Reading, Henley, Maidenhead, Windsor, and so to Staines, becoming there the boundary of the two counties of Middlesex and Surry; and having passed by Chertsey and Kingston in the latter, and Brentford in the former, it comes to the capital of the British monarchy, LONDON; and having traversed that imperial city, and her sister city of Westminster, pursues its course towards the sea; in its future progress divides Essex from Kent, visiting in its passage Deptford, Greenwich, Woolwich, Grays, and Gravesend, at length opens into the sea with a mouth between the Naze and the North Foreland, near sixty miles broad. In its passage it receives no fewer than six considerable rivers that are not navigable, and eleven that are, which affords a vast communication within land; its course has been computed about one hundred and forty miles, of which it is navigable near a hundred from its mouth (*f*). In what is called the Pool, and which is properly the port of London, though, in the custom-house language, that is extended to the whole river below London bridge, has been known to lie

(*r*) Strabonis Geograph. lib. iv. p. 192. Lucan, lib. i. Sidon. Apol. in Panegy. Major. Papir. Masson. descrip. flum. Galliae. Coulon Rivières de France, tom. i. p. 8, 59. Nouvelle Description de la France, par M. Piganiol de la Force. tom. i. p. 4. Le Grand Dictionnaire Geographique et Critique, par M. Bruzen la Martiniere, tom. vii. p. 434. — (*f*) Leland's Itinerary, vol. ii. fol. 25. Lambard's Topographical and Historical Dictionary, p. 370. Harsion's Description of Britain, p. 45, 47. Camdeni Britannia, p. 258, 259. Stow's Description of England, Scotland, Wales, &c. p. 2. Drayton's Polyolbion, Song 3. The Ancient and present State of Gloucestershire, by Sir Robert Atkins, p. 34.

upwards of one thousand ships commodiously ; and it is universally allowed, that in no haven in Europe, vessels lie more safely, take in their loadings with greater ease, or are delivered with superior dexterity and dispatch ; so that an immense commerce is carried on with such order and facility as most astonishes those to whom it is most thoroughly known, and by whom it is best understood (*t*).

WE have an old and a sensible proverb, which admonishes us not to make comparisons, and we are very well aware both of the difficulty and of the danger. But, however, believing this the most effectual means of illustrating the point we have in view, and knowing how much it would contribute to rectify some mistaken notions which some of our hasty travellers propagate, as well as pick up, we have ventured upon it, though we foresee many objections may be made. Yet let those who make them, consider, that what we endeavour to compare in the rivers of France and England, is their commodiousness for, and the profit resulting from, their trade. Let them also consider, that some of the great cities in France, which are seated upon, and do honour to, the rivers on which they stand, owe a great part of their riches and splendour to their being the seats of provincial governments and jurisdictions, and, in consequence of these, the places of residence of the nobility of both robes, with the addition sometimes of ecclesiastical grandeur, to which, London excepted, none of ours can pretend (*u*). Let them likewise remember, how much the trade of our last mentioned river exceeds that to which it stands as a parallel, and dividing the balance in its favour among them, it will amply supply the deficiency, even supposing there be any, of the rest. But if, after all, any doubts are left, we beg leave to put them in mind, that the northern Ouse (*w*), augmented by a number of large and navigable rivers, falls into the Humber as well as the Trent ; the river Weare falls into the sea at Sunderland (*x*) ; which port, however, we except, as belonging to the next chapter ; and the Witham, by Leland called Lindis, with a copious body of water, falls into the German Ocean at the opulent town of Boston (*y*) ; almost over-against Lynn, all on the east side of the island, and may therefore be added to the account, in order to afford them full satisfaction. To this we may subjoin another remark, that all these trading towns are in a thriving condition, and that

(*t*) Additions to Camden, *Atlas Maritimus*, p. 19, 20. Maitland's History of London, p. 621. — (*u*) Such as the Cities of Toulouse, Bourdeaux, Dijon, and Rouen, each of which is the Seat of a Parliament. — (*w*) Harrison's Description of Britain, p. 92. Camdeni Britannia, p. 577. — (*x*) Leland's Itinerary, vol. i. fol. 79, 81, 82, 83, 91. Harrison's Description of Britain, p. 91. Lambard's Topographical and Historical Dictionary, p. 84, 259. Camdeni Britannia, p. 602, 603. Robinson's Natural History of Westmoreland and Cumberland, chap. vii. p. 40. — (*y*) Itinerary, vol. i. fol. 32. Harrison's Description of Britain, p. 100. Brome's Travels over England, p. iii. p. 138.

several of them, we speak not at random, or by guess, are increased to double what they were in the space of the current century (z).

WE have, in a former chapter, admitted that the situation of Spain is, in a multitude of circumstances, as happy and commodious, in respect more especially to foreign commerce, as could well be desired (c). It is almost, but it is not quite, an island; and nevertheless we find there are in this kingdom but six large rivers that empty themselves, with those few lesser ones which they absorb, into the sea. The first of these is the Ebro, which rises on the frontiers of old Castile, towards the principality of Asturias; it passes through both those countries, and then enters into Navarre; it becomes navigable, that is for boats, at Tudela; and having divided this kingdom from Arragon, and passed through Saragossa, which is its capital, it then traverses Catalonia, and falls into the Mediterranean a little below Tortosa. It is in all respects a very fine river, of great utility, but not navigable for ships higher than the last mentioned city, and not even thither by those of a very large size (b).

THE second is the Quiver, or, as it is commonly called, the Guadal Quiver, that is, the great river; it rises in the eastern extremity of Andalusia, and running south-west through that rich and beautiful country, it visits Cordova, Seville, and St. Lucar, and then falls into the bay of Cadiz (c). It is navigable by large ships, but not without danger, as high as Seville; from thence to Cordova by boats only; and not higher even by these (d).

THE Ana, or the Guadiana, rises in new Castile, in a country called la Mancha; its course is from east to west; and having watered Badajos, in the Spanish Estremadura; it passes into the kingdom of Portugal; and having separated Algarve from Andalusia, falls at length into the bay of Cales, near Ayamonte; but neither that or St. Lucar de Guadiana, are ports of any consequence (e).

THE Tajo, or as we call it after the Romans, the Tagus, is indeed a most noble river; it has its source in the New Castile, on the borders of Arragon; and passing through the kingdom of Castile from east to west, after visiting the city of

(z) From certain information, which I am not at liberty to mention.—(a) See Political Survey of Great Britain, chap. i. p. 7.—(b) Strabonis Geograph. lib. iii. p. 156, 158, 175. Plin. Hist. Nat. lib. iii. cap. 3. lib. iv. cap. 12, 20. Lucan, lib. iv. Vayrac etat Present de l'Espagne, tom. i. p. 84. Les Delices de l'Espagne et du Portugal, par Don Juan Alvarez de Colmenar, tom. i. p. 16, 17. Robbe Geographie, tom. i. p. 418.—(c) Strabonis Geograph. lib. iii. p. 139—140, 148. Liv. Hist. lib. xxviii. cap. 30. Plin. Hist. Nat. lib. iii. cap. 1. Vayrac Etat Present de l'Espagne, tom. i. p. 87.—(d) Colmenar Delices de l'Espagne, tom. i. p. 20, 21. Le Grand Dictionnaire Geographique et Critique, par M. Bruzen la Martiniere, tom. iii. p. 353.—(e) Strabonis Geograph. lib. iii. p. 139, 140, 141. Plin. Hist. Nat. lib. iii. cap. 1. Pomponii Meiz de situ Orbis, lib. ii. cap. 6. lib. iii. cap. 1. Vayrac Etat Present de l'Espagne, tom. i. p. 90. Garibay Hist. Hispan. lib. iii. cap. 2. Nonius in descr. Hisp. p. 313. Martiniere Dictionnaire Geographique et Critique, tom. iv. p. 354.

TOLEDO, it rolls through the Spanish Estramadura into Portugal; where after affording a safe and capacious harbour to the largest ships, and these too in any number, at LISBON, it falls about six miles lower into the Atlantic Ocean (*f*).

THE fifth is the Douro, which rises in Old Castile on the frontiers of Navarre and Arragon; and having traversed the first of these kingdoms, it passes into that of Leon; and from thence across the kingdom of Portugal, falling into the Atlantic Ocean about three miles below Oporto. It is a great river, and yet makes but a bad port, by reason of a bar passable only at high water, and then not without hazard from the rocks; and is navigable even for boats but a very little higher (*g*).

THE last, and least of the six, is the Minho, which rises in Galicia; and having divided that kingdom from Portugal, falls into the Atlantic Ocean a little below the small city of Tuy, without making any considerable port (*h*). We may add to these the ports of Rosas and Bilboa; for though the two rivers they stand on are small, and of a short course, they are nevertheless good harbours (*i*).

BESIDES the rivers of South Britain already mentioned, that fall into the German Ocean, there are some others that ought not to be passed over; such as the Tweed, which rising on the borders of Clydesdale, and running through Tweeddale, divides the shire of Mers from Tiviotdale and Northumberland; and having received several streams in its course, falls at length into the sea a little below Berwick, which is still a port, though but a small one (*k*). The Tees rises on the confines of the county of Cumberland, and running eastward, separates the county or bishoprick of Durham from Yorkshire, falling into the German Ocean six miles below Stockton (*l*), called from thence Stockton upon Tees, which is a place of considerable trade, and may be of greater, when either their own wealth, or the attention of the public, shall enable its inhabitants to correct the rapidity of the current, which makes the entrance of the harbour hazardous, that would be otherwise very good (*m*). The two fair and beautiful bordered rivers Yare and Waveney, rise in, and run through the populous county of

(*f*) Strabonis Geograph. lib. iii. p. 139, 152, 154, 160. Plin. Hist. Nat. lib. iv. cap. 22. Pomponii Melæ de situ Orbis, lib. iii. cap. 1. Vayrac Etat Present de l'Espagne, tom. i. p. 94, 95. Les Delices de l'Espagne et du Portugal, par Don Juan Alvarez de Colmenar, tom. i. p. 25. — (*g*) Strabonis Geograph. lib. iii. p. 203, 205, 217. Plin. Hist. Nat. lib. iv. cap. 20, 21. Pomponii Melæ de situ Orbis, lib. ii. cap. 6. lib. iii. cap. 1. Vayrac Etat Present de l'Espagne, tom. i. p. 95. Colmenar Delices de l'Espagne, tom. i. p. 26, 27. Le Grand Dictionnaire Geographique et Critique, par M. Bruzen la Martiniere, tom. iii. p. 149. — (*h*) Strabonis Geograph. lib. iii. p. 153. Pomponii Melæ de situ Orbis, lib. iii. cap. 1. Nonius in Descript. Hispan. Vayrac Etat Present de l'Espagne, tom. i. p. 96. Les Delices de l'Espagne et du Portugal, par Don Juan Alvarez de Colmenar, tom. i. p. 28. (*i*) Vayrac Etat Present de l'Espagne, tom. i. p. 194. tom. ii. p. 443. — (*k*) Leland's Itinerary, vol. vii. p. 1. fol. 80. Harrison's Description of Britain, p. 88. Camdeni Britannia, p. 658. — (*l*) Leland's Itinerary, vol. i. fol. 93. Camdeni Britannia, p. 601. Drayton's Polyolbion, Song 29. Robinson's Natural History of Westmoreland and Cumberland, chap. vii. p. 40. — (*m*) Additions to Camden's Britannia.

Norfolk; the former (or rather the Wensome which falls into it) passing by Norwich, and the latter by Thetford, unite their streams a little above Yarmouth, where they fall into the sea. At the time of the Norman conquest, the town, then called Gernemwa, which plainly comes from the ancient Latin name *Garionenum*, which Mr. Baxter interprets *Garu auncu*, the mouth of the rough river, belonged to the crown, and the king had therein seventy burgessees, who were merchants and traders by sea. One hundred and forty years afterwards, that is in the ninth of King John, who was a great favourer of seamen and trade, the place was made a free borough, the inhabitants were allowed to chuse a bailiff, and their fee-farm to the king was settled at fifty-five pounds annually. In the reign of Edward III. at the distance of about the same number of years, this seems to have been the most flourishing sea port in England, since it furnished for that monarch's service, when he undertook his great expedition against France, forty-three ships, and nine hundred and fifty men; at which time the city of London furnished but twenty-five ships, and six hundred and sixty-two men. In succeeding times, by the industry of its inhabitants, the favour of our monarchs, and the application of the townsmen to fishing, the place increased so much, and the people became so wealthy, that by the name of Great Yarmouth this mart was known, and its merchants famous, not in our island only, but over all Christendom. This, in our own times, for its size, is one of the fairest towns in England, has a noble market, a quay inferior to few, if to any in Europe, and has been for many ages a place of very great trade, and to which a larger number of vessels belong, than to several of those which are the most celebrated ports in other countries (*n*).

THE river Stoure rises on the west side of Suffolk, on the borders of Cambridgeshire, and running eastward, so as to divide Suffolk from Essex, passing by Sudbury and Neyland, and having received the river Berton in its passage, rolls with a mighty flood into the German Ocean (*o*). The Orwell, which the Saxons called the Gipping, rises almost in the centre of Suffolk; and running south-east with a full stream, though it receives but few rivulets in its passage, falls likewise into the German Ocean; so that its waters meet those of the Stoure. Over-against the mouths of these rivers projects a promontory from Essex, in the bosom of which they form a great bay. On this point of land stands Harwich. Here is a deep, capacious, and

(*n*) Little Domesday Book, fol. 118. a apud MS. in Bibliotheca Cotton. Claudius E. 8. f. 5. A. Col. 1. Carta Regis Edwardi III. de libertatibus Portus magnæ Jernemu. Harrison's Description of Britain, p. 104. Camdeni Britannia, p. 346, 347. Spelmanni Icenia, p. 154, 155, 156. Brady of Boroughs, p. 35, 36. Madox, Firma Burgi, p. 126. Baxteri Glossarium Antiquitatis Britannicæ, p. 127. — (*o*) Harrison's Description of Britain, p. 105. Camdeni Britannia, p. 337. Speed's British Empire, fol. 33. Salmon's History and Antiquities of Essex, p. 1.

safe harbour, which has been known to hold above one hundred men of war, with all the vessels belonging to them, and three or four hundred sail of colliers at the same time (*p*). The depth of the Orwell, or Gipping, permits vessels of almost any burthen to go up within two miles of Ipswich, called by the Saxons, from the name of the river, Gippeswich; a stately well-built town, and in the last century a place of great trade; which if at present somewhat declined, may, and probably will, in succeeding times, and as new improvements are made, and new manufactures introduced in the adjacent counties, recover its former lustre (*q*).

ON the west side of south Britain there are perhaps as many rivers as on the east; yet of those there are but few, of which with any colour of truth it can be said, that they run a long course. However, there are some which afford very capacious and commodious harbours (*r*). Solway Firth, which divides South from North Britain, receives into it several rivers, the most considerable of which is Eden. This river, rising in Westmoreland, not much beyond Appleby, though Camden says in Yorkshire, because the mountain from which it springs stands on the confines of both counties, falls here into the sea, after a course of forty miles, about three miles below Carlisle; which city is seated very commodiously; and though at present it has not much trade, yet as the country about it is every-where improving, perhaps one should run no great hazard in foretelling that hereafter it may become a place of as great consequence in that respect, as it has been hitherto thought as a barrier (*s*). The River Lune rises also in Westmoreland; and passing by Kirkby Lonsdale, after receiving many small streams, waters the town of Lancaster, supposed to receive its name from thence, and falls into the Irish Sea about four miles below it. There is not much to be said in commendation of this port, farther than that of late, and particularly within these twenty years, it is become much more considerable than it was, as the industry of the inhabitants of this county has increased, and, in consequence of that, their numerous manufactures, by furnishing the materials for purchasing, have excited the desire of foreign commerce (*t*). The same may be said of the Ribble, and its port of Preston; which, though in its present state a well built, populous, and very thriving town, is, in point of trade, very capable, and we have reason

(*p*) Harrison's Description of Britain, p. 105. Lambard's Topographical and Historical Dictionary, p. 256. Camdeni Britannia, p. 337. Additions to Camden, p. 359. Dale's History of Harwich, and Dover Court, p. 28. — (*q*) Camdeni Britannia, p. 337. Lambard's Topographical and Historical Dictionary, p. 160. Speed's British Empire, fol. 33. — (*r*) See in the next chapter many ports, but of another sort, on this side the island. — (*s*) Leland's Itinerary, vol. vii. fol. 61. Harrison's Description of Britain, p. 87, 92. Britannia, p. 625. Robinson's Natural History of Westmoreland and Cumberland, chap. viii. p. 48. — (*t*) Leland's Itinerary, vol. vii. fol. 61. Harrison's Descriptions of Britain, p. 85. Camdeni Britannia, p. 617.

to expect from the changes made in several places in its neighbourhood, must in succeeding times admit of many, and those too great improvements (*u*).

THE Weever springs out of Ridley Pool in Cheshire; and running South-East to Wrenbury, it receives two little streams by the way; then running East, it is joined by a somewhat larger rivulet from Shropshire. After this it directs its course North, passes through Namptwich, and so proceeds to Northwich, where it receives the river Deane from Middlewich; and half a mile below the town, the Peever. In its passage from thence it receives three rivulets out of Delamere Forest; and having ran in the whole about thirty-three miles, it discharges itself into the great river Mersey, at Weston. The last mentioned river rises at a place called the Wood-head, amongst the Peak Hills, keeping a South-West course, and dividing Derbyshire from Cheshire; then entering the last mentioned county, it admits the Tame, and thenceforward divides Cheshire and Lancashire. At Flixton it is augmented by the Irrwill, from Manchester; and several smaller streams in its passage to Warrington, where there is a bridge over it; thence proceeding to Weston, its waters joining those of the Weever, become above a mile broad; and continuing its majestic course, it receives the Gowy; after this accession, through the closing of a rocky coast, it is somewhat straitened in its passage, and at length falls into the sea a little below Liverpool (*w*). This, though once a very inconsiderable place, is now become a port of great repute, and one of the most striking and memorable instances of the beneficial consequences of a good situation; the town being at least ten times as large as in the days of our industrious antiquary Leland, elegantly built in a modern taste, with a wet dock, and other considerable, and very uncommon and expensive improvements. By these singular and well-judged conveniencies, in which surpassing other out-ports, Liverpool seems to emulate London, the mother and mistress of commerce, it draws to itself a large share of the commodities and manufactures of the North-West counties; is a thoroughfare from Ireland; entertains a correspondence with most of our colonies, and carries on a great foreign commerce in the Baltic, and with France, Spain, and Portugal (*x*).

THE river Dee rises in Merionethshire, in North Wales, and runs at first North-East into Denbighshire; from thence directing its course more to the East, it passes through Flintshire; and having touched the edge of Shropshire, turns to the North; and dividing Flintshire from Cheshire, after a course of between fifty and sixty miles, falls into St. George's Chan-

(*u*) Harrison's Description of Britain, p. 85. Camdeni Britannia, p. 616. Leigh's Natural History of Lancashire, &c. b. i. p. 22. — (*w*) Leland's Itinerary, vol. v. fol. 82; vol. vii. fol. 41. Harrison's Description of Britain, p. 83, 84. Camdeni Britannia, p. 460, 462, 610, 611. Drayton's Polyolbion, Song 11. King's Vale Royal, P. i. p. 21, 22. Leigh's Natural History of Lancashire, Cheshire, &c. b. i. p. 21. — (*x*) Leland's Itinerary, vol. vii. P. i. fol. 56; vol. viii. P. i. fol. 48. Camdeni Britannia, p. 612. Leigh's Natural History of Lancashire, Cheshire, &c. p. 21.

nel, sixteen miles below the ancient and famous city of Chester (y). This river at its mouth is sixteen miles broad, and would afford Chester a most noble port, if it was not for the bar at the entrance, which renders it difficult; however, Chester is beyond all doubt, a fair old city; and from its communication with a very fertile country behind it, and its intercourse with Ireland and Wales, maintains a very considerable trade; which, if the laudable endeavours used for improving the navigation of the Dee succeed, must be much augmented, but is at all events in no danger of decreasing (z).

THAT noble river which our ancestors, the Britons, called Havren, the Romans, Sabrina, and the English, Severn, rises out of a high mountain in Montgomeryshire, called Plinlimmon, or Plynllymon; from whence running South-East, it receives two small rivulets; and then turning directly North, passes through Llanidios, where receiving the waters of five other streams, and running North-East to Newtowne, it continues its course more to the Northward till it enters Shropshire, and being joined by several brooks by the way, at last reaches Welch Pool; being, in the space of twenty miles, become, from a slender silver stream, a very deep and copious river, and is navigable from thence to its mouth. From Welch Pool the Severn runs North; and then turning to the East, after washing the splendid and populous town of Shrewsbury, superior to some cities, runs South-East to Bridgenorth; and from thence, declining still more to the South, enters Worcestershire, and proceeds to Bewdly. The Severn, swelled with concurring streams, traverses entirely that county, and having watered, amongst other places, Worcester and Upton, it passes forward to Gloucestershire, and so rolls on to Tewksbury; from whence, having visited Gloucester, it travels forwards; and meeting still with fresh accession of waters, grows to such a size, as to be stiled the Severn sea, pouring its tide, after a progress of more than one hundred and thirty miles, into the Bristol channel (a). This great mart, from which this conjunction of waters receives its name, is as conveniently situated as can well be imagined, at the conflux of two considerable rivers, the Avon and the From, having bridges over both. The latter falls into the former a little below the city, and their joint streams into the Severn, at four miles distance. On the North side of the town runs the quay, along the river From, to which ships even of great burthen come up; though, for the conveniency of commerce, many re-

(y) Harrison's Description of Britain, p. 82. Lombard's Topographical and Historical Dictionary, p. 94. Camdeni Britannia, p. 530. Baxteri Glossarium Antiquitatum Britannicarum, p. 103. Leigh's Natural History of Lancashire, Cheshire, &c. p. 22. — (z) Leland's Itinerary, vol. v. fol. 54. Lombard's Topographical and Historical Dictionary, p. 55. King's Vale Royal, P. i. p. 20, 21. Camdeni Britannia, p. 458, 459. Speed's British Empire, p. 73. — (a) Leland's Itinerary, vol. vii. fol. 24. Harrison's Description of Britain, p. 68. Camdeni Britannia, p. 524. Speed's British Empire, fol. 115. Drayton's Polyolbion, Song 6. Enderbies's History of Wales, p. 215. Atkins's Ancient and Present State of Gloucestershire, p. 32, 33.

main at Hongroad, and others at Kingroad, which is still lower. If we consider domestic trade, or inland navigation, Bristol is without a rival; for by the Avon she draws to herself the commodities of Warwickshire; by the help of the Teem she receives those of Herefordshire and Shropshire; the Wye brings her also some part of the tribute of the former of those counties, and of Radnorshire; and if there be any thing yet left in Herefordshire or Shropshire, the Lugg drains them both. Monmouthshire, and the adjacent part of Wales, send their supplies by the Uske; and a great part of Somersetshire communicates both goods and manufactures by the Ivel. Not satisfied with all this, the Bristol traders deal largely by land, and often interfere with those of Hull in the North, and of London in the South. As to foreign commerce considered in the gross, Bristol is next to London; but if the value of that commerce be compared with the size of the respective cities, Bristol has the start; and, except it may be two or three branches, to the participation of which of late she begins to put in her claim, in point of intercourse with all parts of the world, her correspondence is as extensive (*b*).

THOSE, that is the remainder of the rivers running into the German Ocean, and these running Westward into the Irish sea, are what we offer to compare with these of Spain. Be not amazed, courteous reader! or suppose from hence, that I am utterly unacquainted with the Galleons and register ships of that kingdom; or the fleets that Portugal sends to the Brazils. Gold and silver are commodities, as much as lead, wool, or coal, and not near so necessary as corn. It is not our intention, however, to consider, or to compare our rivers and ports in the point of value precisely, but in general, in regard to their utility, the number and tonnage of their shipping, the seamen they employ, the labour they excite and maintain, the commodities and manufactures they export, and the several other methods in which they cherish an active spirit, and reward, and thereby promote, industry. If any doubt should arise, I am willing to augment this catalogue with the port of Bridgewater, which is likewise on the Bristol channel, standing at the mouth of the Parret; as also Gloucester; neither of them, separately taken, inconsiderable, though neither of them comparable to Bristol; but time, assisted by a spirit of attention and frugality (which raised that emporium to such greatness) may have a gradual effect on these (*c*) so as to render them somewhat more formidable rivals.

WE will now proceed to enumerate the most remarkable rivers that fall into the sea on the West side, and on the South front of the island. The Taw, in Devonshire, rises about the middle of the county, and running a North-West course of

(*b*) Leland's Itinerary, vol. v. fol. 64; vol. vii. P. ii. fol. 68 b, 69 a, 70 b, 71 a, 71 b. Camdeni Britannia, p. 173. Speed's British Empire, fol. 23.—(*c*) Camdeni Britannia, p. 164. Sir Robert Atkins's ancient and present State of Gloucestershire, p. 77, 78.

upwards of twenty miles, and receiving by the way several considerable streams, passes by Barnstaple. The Towridge rises within a mile of the Taw, runs the same course, turning only a little more to the West, and so reaches Biddeford; and about two miles from thence joins its waters with those of the Taw, and together form what is called Barnstaple Bay; so that these two trading towns have but one port between them (*d*). They were formerly inconsiderable places; at present they are very great and thriving. The manufactures of the large towns behind them, and their easy passage by the rivers before mentioned; the fisheries on the coasts, and their correspondence with Ireland; have raised them to great wealth and credit. Perhaps their emulation also has been no prejudice to either; on the contrary, if we consider the great improvements made to hinder the one from clearly surpassing the other, and retaining that superiority for any length of time, we cannot but discern that it has been highly beneficial to both (*e*).

IN Cornwall, the river Camel, so called in the ancient language of the country for its winding course, in Latin Comblana, from whence the modern name of Alan, rises in the North-East part of the county, within three miles of the sea into which it falls; and running in a manner directly South for the space of twelve miles, then turns North-West, and, after a course of somewhat more than twenty miles, falls into the sea two miles below Padstow, which it furnishes with a very indifferent haven, because of a bar of sand at the mouth (*f*). Falmouth, which is said to derive its name from its standing at the mouth of the river Fale, or Fala, has indeed one of the finest harbours in this island, partly from the situation of the coast, and partly from the influx of several rivers. It is so capacious, that an hundred ships may ride there commodiously, without seeing each other's tops; since the fixing the Lisbon Packet there, it is much improved, and is become a clean, neat, and wealthy place (*g*). The two large towns, Truro and Penryn, partake of all the advantages of this haven, the entrance of which is narrow, and secured from all danger by Pendennis Castle on the West, and that of St. Maws on the East (*h*). Fowey stands at the mouth of a river of the same name, which

(*d*) Leland's Itinerary, vol. ii. fol. 67, 68, 69. Harrison's Description of Britain, p. 65. Camdeni Britannia, p. 150. Risdon's Survey of Devonshire, vol. ii. p. 302, 306, 364. — (*e*) Leland's Itinerary, vol. ii. fol. 67. Camdeni Britannia, p. 150. See a very ingenious account of Biddeford in the Gentleman's Magazine, vol. xxv. p. 445. — (*f*) Leland's Itinerary, vol. ii. fol. 74, 75; vol. iii. fol. 1, 2. Appendix to the seventh Volume of Mr. Leland's Itinerary, p. 117, 118. Harrison's Description of Britain, p. 64. Carew's Survey of Cornwall, b. ii. fol. 143. Camdeni Britannia, p. 140. — (*g*) Leland's Itinerary, vol. iii. fol. 10, 12. Appendix to the seventh Volume of Mr. Leland's Itinerary, p. 121. Lambard's Topographical and Historical Dictionary, p. 120. Carew's Survey of Cornwall, b. ii. fol. 149. Camdeni Britannia, p. 137. Speed's British Empire, fol. 21. — (*h*) Leland's Itinerary, vol. iii. fol. 10, 11. Appendix to the seventh Volume of Mr. Leland's Itinerary, vol. vii. p. 121. Carew's Survey of Cornwall, b. ii. fol. 141, 150. Camdeni Britannia, p. 138. Harrison's Description of Britain, p. 62, 63.

was formerly navigable as high as Lestwithiel; anciently a port of great fame; in succeeding times much abated; now again increasing daily, and recovering its ancient splendour. Plymouth, between the Plym and the Tamar, the latter of which divides almost from its source the two counties of Devon and Cornwall, and runs a direct course from North to South, upwards of forty miles (*i*). Plymouth possesses, from its situation, almost all the advantages that can be desired. It has two capacious and commodious ports, one to the East, and the other to the West; is a very large and populous town, has a great domestic trade, and carries on much foreign commerce, at the same time that it has two docks, one wet, the other dry, with every thing suitable to a royal yard, and is at the same time amongst the few good fortifications in England (*k*). The Dart rises in the middle of Devonshire, and running almost directly South, receiving many considerable streams in its passage, and becoming thereby a deep and strong river, after a course of about thirty miles, falls into the sea a little below Dartmouth, to which it affords a noble, safe, and convenient harbour, the entrance of which is covered by a castle, immediately under the guns of which all vessels are obliged to pass. As there are many large, well peopled, thriving, manufacturing towns, and a good country behind it, Dartmouth has run into a great domestic trade, is well built, though a little irregular from the nature of its situation, is very populous, and amongst its inhabitants there are many wealthy merchants, who carry on an extensive commerce to the different parts of Europe, and distribute their returns with great advantage to themselves, by which much shipping, and many seamen, are employed (*l*).

THE Isk of the Britons, the Iſca of the Romans, and the Ex, or Exe, of the Saxons, and of the moderne, rises in Exmoor, in Somersetshire, within three miles of the Severn sea; and pursuing its course into Devonshire, passes by Tiverton, a place of great trade, receives in its progress seven considerable streams, and amongst these the Creden from Crediton, vulgarly Kirton, and the Columb from Columpton and Bradnich, reaches the large and opulent city of Exeter, which, if they mistake not who informed us, has sometimes returned, from its manufactures sold in its markets and fairs, upwards of a million in a year; and at length this fair river falls into the sea, nine or ten miles below Exeter, at a place which is thence stiled Exmouth. In ancient times the city was itself blessed with a convenient port, but now ships of burthen come no higher than

(*i*) Leland's Itinerary, vol. iii. fol. 17, 20, 21, 23. Appendix to the seventh Volume of Mr. Leland's Itinerary, p. 122. Harrison's Description of Britain, p. 61, 62. Camdeni Britannia, p. 138. — (*k*) Leland's Itinerary, vol. iii. fol. 22. Camdeni Britannia, p. 144. Brome's Travels over England, Scotland, and Wales, p. 252. — (*l*) Leland's Itinerary, vol. iii. fol. 28. Harrison's Description of Britain, p. 60. Camdeni Britannia, p. 145. Riffon's Survey of Devonshire, vol. ii. p. 196, 216, 217.

Topsham, which is three miles below Exeter (*m*). However, the channel of the river is at present so well cleansed, that very large barges go quite up to the city, which being a bishop's see, and the county town, is, in all respects, one of the most considerable in the kingdom; and yet some of the ports in this county, and which we have already mentioned, are very near as populous. We have dwelt the longer on this instance, because it is a case in point, the city deriving its name, its credit, and its wealth, from the river, on the east side of which it stands (*n*).

BRIDPORT, in Dorsetshire, was formerly a place of consequence; and the cordage of the royal navy was, by a series of acts of parliament, confined to be made here, or within five miles round (*o*). But the place being dispeopled by an epidemic disease, and that privilege suffered to expire, the haven made by the falling of the Bur, and another rivulet into the sea, was choaked with sand; till, in 1722, an act was obtained for restoring the port; which has been in a good measure done, but is still no more than a creek to Lyme; so much more difficult it is to recover than to preserve (*p*). Wareham has been more unfortunate; for standing at the influx of two considerable rivers, the Frome and Piddle, into a great bay of the sea, by the retreat of its waters, it has lost its port (*q*). Between these, on the coast, rises the little river Wey, from a considerable eminence called Uphill; whence, after a short course of about four miles, it falls into the sea between Weymouth and Melcomb Regis, now united by a bridge over it (*r*). They were formerly, as ancient records, and many acts of parliament shew, places of some consideration, and much exposed to the insults and depredations of the French, in consequence of which, all the privileges of Melcomb were, by a statute made in the reign of Henry VI. transferred to the town of Pool, which thence, from a few fishers' huts, commenced a port (*s*). But, by a subsequent act in the reign of Queen Elizabeth, confirmed by another in the beginning of her successor's reign, it was united to Weymouth; and they are at present one corporation, returning, however, four members to parliament, as

(*m*) Leland's Itinerary, vol. iii. fol. 31, 34, 35. Harrison's Description of Britain, p. 59. Camdeni Britannia, p. 147. Speed's British Empire, fol. 19.—(*n*) Risdon's Survey of Devonshire, vol. i. p. 9. Remarkable Antiquities of the city of Exeter, by Richard and Samuel Izacke, Esqs.—(*o*) Leland's Itinerary, vol. iii. fol. 44. Camdeni Britannia, p. 154. A Survey of Dorsetshire, containing the antiquities and natural history of that county, by the Reverend Mr. Coker, p. 21, 22, 23.—(*p*) Stat. viii. Geo. i. chap. xi. §. 1.—(*q*) Leland's Itinerary, vol. iii. fol. 53. Camdeni Britannia, p. 156. Additions to Camden. Coker's Survey of the county of Dorset, p. 55, 56, 57.—(*r*) Leland's Itinerary, vol. iii. fol. 48. Harrison's Description of Britain, p. 58. Coker's Survey of the County of Dorset, p. 33, 34.—(*s*) Leland's Itinerary, vol. iii. fol. 48, 49, 97. Willis's Notitia Parliamentaria, vol. ii. p. 452, 453. Coker's Survey of the County of Dorset, p. 35, 85.

being composed of two boroughs(*t*). These two towns contain between five and six hundred houses, and about five thousand inhabitants, amongst whom are several wealthy merchants, who have a considerable share in the Newfoundland fishery, and trade to the plantations, particularly Virginia; so that it is a neat thriving place, with a good number of ships belonging to it(*u*); and a most remarkable instance, that even the smallest rivers may be made of consequence, with proper care and attention.

AT the influx of the Alaun, commonly called the Avon, and the Stour, almost at the entrance of Hampshire, stands Christ Church, a populous market town, and eminent for a manufacture of gloves and silk stockings; but very inconsiderable as a port, though so well situated(*w*). Lymington, celebrated for its salt works, stands also at the influx of a river, and is a port of much greater consequence; though both, in the custom house accounts, but creeks to Southampton(*x*). The Tise, or Anton, rises in the north of Hampshire, near Church Okeley, and running first west, then south, near thirty miles, falls into, what is usually styled by seamen, Southampton Water, on the west; as the river Alre, or, as it is commonly called, Itching, having run twenty, and watered Winchester, does on the east of Southampton(*y*). This is an ancient and beautiful, was heretofore opulent and populous, but now a declining town; which, considering its admirable situation, ships of great burthen coming up to the quay, and such as are built in the place being launched indifferently into either river, is amazing. It retains still the same majestic appearance which it made in better times, and some trade in wines to Guernsey and Jersey. Besides the malignant source of its misfortunes, which we are told, by an intelligent author, was the pique of Robert Dudley, earl of Leicester, in high credit with Queen Elizabeth, there have been other concurrent causes of a much later date, which have at least hindered it from reviving, as might have been expected. The decay of timber in New Forest, the decline of our commerce with France, the rapid growth of Portsmouth, and the removal to Pool, and other places, of some merchants concerned in the Newfoundland trade, are amongst the most obvious of these causes. But as it still retains all its former conveniencies, and, in spite of these accidents, a competent share of commerce, posterity, in consequence of other, and, in

(*t*) Camdeni Britannia, p. 155. Willis's Notitia Parliamentaria, vol. ii. p. 436. Coker's Survey of the County of Dorset, p. 34. — (*u*) Additions to Camden. Coker's Survey of the County of Dorset, p. 35, 36. — (*w*) Leland's Itinerary, vol. iii. fol. 79. Harrison's Description of Britain, p. 57. Camdeni Britannia, p. 187, 188. Brome's Travels over England, Scotland, and Wales, p. 264. — (*x*) Magna Britan. et Hibern. vol. ii. p. 849. Atlas Maritimus et Commercialis, p. 12. — (*y*) Camdeni Britannia, p. 188, 189. Speed's British Empire, fol. 13. Brady of Boroughs, p. 12.

respect to it, more fortunate changes, may see it in as good a state as our ancestors saw it heretofore (z).

THE LAVANT, a pretty pleasant stream, almost invests the neat city of Cissas-cester, now Chichester, in Suffex, anciēntly the capital of the South Saxon kingdom, and falling into the sea at Dell Kay, about four miles below it, affords, though not without the assistance of art, a tolerable port, from which some foreign commerce, and a large domestic trade, is carried on by merchants residing there; to which we may add, with truth, that both are daily increasing. The Arun rises in the west part of Suffex, on the confines of Hampshire, runs directly east to Pulbore, from whence it is now rendered navigable; and there turning directly south, falls into the sea a little below Arundel, which has a tolerable port for small vessels; and as there is abundance of good timber in this county, many ships are built here, and at Shoreham, which stands at the mouth of the Adur, and, though the river (except in bringing down timber) contributes little, is as good a harbour as Shoreham (b). The Ouse, which, after a course of between twenty and thirty miles, falls into the sea about eight miles below Lewes, makes a little convenient port at Newhaven, which, in virtue of an act of parliament passed in 1731, is so repaired and revived, as to become very thriving both in commerce, and in ship-building (c). The river Rother rises in the northern part of Suffex; and running first east, and by dividing its stream, it encompasses the isle of Oxney, then turning south, it falls into a bay of the sea near Rye, once a noble harbour, and still a member of one of the cinque ports; yet, by gaining land, through the covetousness of its former inhabitants, on the sea, and on the river, in imminent danger of being utterly spoiled. But, by repeated acts of parliament in its favour, is now, at least in some measure, recovered; and as great encouragement is still given, we may hope, will in time be perfectly restored (d). It may not be amiss to note here, that, so long ago as 1570, the immediate detriment, and the future ruin, of this port, was, under colour of private advantage, concerted and carried into execution, by the ill-judged gaining, or, as the old technical phrase is, inning, of two thousand acres of marsh out of the sea; which anti-improvement has

(z) Leland's Itinerary, vol. iii. fol. 74, 75, 76, 77. Speed's British Empire, fol. 13. Lambard's Topographical and Historical Dictionary, p. 139, 140. Additions to the last Edition of Camden's Britannia. Atlas Maritimus et Commercialis, p. 12. — (a) Camdeni Britannia, p. 220. Lambard's Topographical and Historical Dictionary, p. 72. Brome's Travels over England, Scotland, and Wales, p. 272. — (b) Harrison's Description of Britain, p. 54. Camdeni Britannia, p. 220, 223. Lambard's Topographical and Historical Dictionary, p. 346. — (c) Stat. iv. Geo. II. chap. xvii. §. 1. — (d) Harrison's Description of Britain, p. 53. Lambard's Topographical and Historical Dictionary, p. 193, 194. Camdeni Britannia, p. 227. Harris's History of Kent, b. i. P. iii. p. 361. Atlas Maritimus et Commercialis, p. 11.

since cost the public, in many more shapes than is commonly conceived, so very dear (*e*).

THE next river I shall mention is the Stour, in Kent, which, in the reign of Queen Elizabeth, was made navigable as high as Canterbury. In ancient times there appear to have been two rivers of this name, which are supposed to have fallen into the Wantsume, at a place called the Stourmouth (*f*). There are two rivers still, one called the Greater, the other the Lesser Stour, and both, as far as I can judge, were formerly navigable, but never as a joint stream, the former falling into the Wantsume, at Stourmouth, and the latter at some distance from it (*g*). In reality, there have been great and manifest changes in the face of the country, and the course of the rivers, in this part of Kent; of which we have a most curious, elegant, and instructive chart, by a late learned physician, from which we are enabled to discern plainly how things stand at present, and to form a probable conjecture how they might have stood in times past (*h*); when, as clearly appears from the concurrent lights of all histories, they must have been in a very different situation (*i*); which, though we have not room particularly to discuss, yet the nature of our subject obliges us to mention, and how dangerous soever that may be, after so many great men have clashed in their opinions (*k*), to express ours also. But, as neither of these rivers ever admitted vessels of any size, or communicated with the sea, otherwise than by that arm of it, which, as we have already observed, was called the Wantsume (*l*), what we have to offer upon this head, belongs properly to the next chapter.

THE last river of which in this Survey, and in pursuance of our principle, we shall take notice, is the Medway, which runs through the heart of Kent, and is one of the fairest and finest streams in this island (*m*), agreeable to the learned anti-

(*e*) Lambard's Topographical and Historical Dictionary, p. 312.—(*f*) Appendix to vol. vii. of Leland's Itinerary, fol. 144. Lambard's Perambulation of Kent, p. 259, 264. Somner's Antiquities of Canterbury, chap. v. Camdeni Britannia, p. 239.—(*g*) Drayton's Polyolbion, song 18. See Holland's Translation of Camden's Britannia. Harrison's History of Kent, p. 361.—(*h*) ANKOGRAPHIA, five Convallium Descriptio. In which are briefly, but fully, expounded, the origin, course, and insertion; extent, elevation, and congruity, of all the vallies and hills, brooks and rivers (as an explanation of a new Philosophico-Chorographical Chart) of East Kent. Occasionally are interspersed some transient remarks that relate to the natural history of the country, and to the military marks and signs of Cæsar's route through it, to his decisive battle in Kent, by Christopher Packe, M. D. Canterbury, 1747, 4to.—(*i*) Cæsar de bello Gall. lib. v. Tacit. in vita Agricola, Juvenal. Sat. iv. Ammian. Marcellin. lib. xx. cap. 1, lib. xxvii. cap. 8. V. Fortunatus in vita Sti. Martini.—(*k*) Such as Leland, Camden, Lambard, Somner, Battely, &c.—(*l*) Bedæ Ecclesiasticæ Historiæ Gentis Anglorum, lib. i. cap. 26. Lambard's Topographical and Historical Dictionary, p. 398. Harris's History of Kent, p. 361.—(*m*) Camdeni Britannia, p. 233, 234, 235. Spencer's Fairy Queen, book iv. cant. xi. Drayton's Polyolbion, song 18.

quary's British etymology (*n*), *Mad uog iusc*, that is, a beautiful body of water. It is generally said to have four heads; the first at Crowherst in Surry; the second from two springs, one at Fant, the other at Steward's Mead, in Suffex; the third at Goldwell in Great Chart; the fourth at Biggenheath, in Leneham, both in Kent (*o*). This last joins the body of the river in Maidstone, a very ancient town deriving its name, its beauty, and its wealth, from this river (*p*). There is not perhaps in this island, a place that more effectually shews the permanent advantages that arise from a favourable situation, than this does. It was chosen by the Britons (*q*), improved by the Romans (*r*), made a great figure in the time of the Saxons (*f*), and is a populous well-built flourishing town at this day (*t*). The tide flows up hither, and the river is navigable for barges, and other vessels, of the burthen of upwards of fifty tons. It is not only a corporation, and a borough, returning two members to parliament, but likewise the county town, where the knights for the shire are elected, and the assizes usually held (*u*). There is also a very considerable manufacture of thread settled by the Wallons; and upon the river, and the streams that fall into it, there are at present many mills, employed in several manufactures; as indeed, in different times, there have been of almost all the various kinds that perhaps ever were used in this country (*w*). At the distance of eight miles, upon the same river, stands the city of Rochester, indisputably a Roman station (*x*), and which, though it has suffered exceedingly from a variety of enemies and accidents, is in our times, though a small, a thriving city, with a port, having an encreasing trade, and in its neighbourhood from Chatham to Gillingham, the largest ships of the royal navy are usually laid up (*y*); which is alone a sufficient commendation of the river Medway, that falls into the sea, or rather into the mouth of the Thames, about ten

(*n*) Baxteri Glossarium Antiquitatum Britannicarum, p. 162.—(*o*) Lambard's Perambulation of Kent, p. 219, 220. Harris's History of Kent, p. 360.—(*p*) Leland's Itinerary, vol. vii. P. ii. fol. 126. Camdeni Britannia, p. 234. Lambard's Topographical and Historical Dictionary, p. 220.—(*q*) Ninnii Historia Britonum. He calls it in his Catalogue of Cities, in the printed Copies, *Caer Meguid*. Camden reads it in his MS. *Caer Megwad* corruptly (as he supposes) for *Medwag*. Baxter asserts it should be read *Caer Medhuag*. But that it was inhabited by the Britons, appears from the digging up some of their little boats, or canoes, in the marshes near it, in 1720. See Doctor Stukeley's Itinerarium Curiosum, p. 114.—(*r*) Camden, Baxter, and most of our Antiquaries agree, that this is the *Vagniacæ* of the Itinerary, and that *Durobrovæ*, is Rochester. Mr. N. Salmon is for making them change places, but allows them to have been both Roman Stations.—(*f*) Chronicon Saxonum, p. 133, 149, has *Medwaage*, some later writers, *Medeweagestun*, i. e. *Medway's Town*.—(*t*) Harris's History of Kent, p. 190, 193. Additions to the last Edition of Camden's Britannia. Atlas Maritimus et Commercialis, p. 20.—(*u*) See the Article Maidstone in Collier's Great Historical Dictionary. The History and Antiquities of Maidstone, by William Newton, London, 1741, 8vo.—(*w*) Atlas Maritimus et Commercialis, p. 20. Stukeley's Itinerarium Curiosum, p. 114. Additions to Camden's Britannia.—(*x*) Lelandi Commentarii in Cygneam Cantionem, p. 53. Camdeni Britannia, p. 235. Baxteri Glossarium Antiquit. Britannic. p. 112.—(*y*) Lambard's Topographical and Historical Dictionary, p. 287. Additions to Camden's Britannia. Salmon's new Survey of England, p. i. p. 35.

miles lower, after a course of about forty miles; and is perhaps, that circumstance considered, one of the deepest and fairest rivers in Europe (z). This is a very succinct, but at the same time a very particular account of the most remarkable rivers in this part of the island, in support of the general assertions advanced at the beginning of this chapter.

Thus then we have unfolded one of the principal causes of the grandeur and happiness of South Britain, which unquestionably consist in this large number of her navigable rivers, the extent and disposition of the country considered, from whence so many commodious situations for pleasant and populous towns were ever afforded, and more or less occupied, as history informs us, even from the earliest times (a). Such establishments supply the greatest and most effectual encouragements to agriculture, in the most extensive sense of that very comprehensive term. Necessity will oblige men to cultivate, where-ever they are placed; and the pleasing prospect of living at ease, may carry this a little farther; but the mischief is, that men cannot any-where, or by any means, secure to themselves, plenty, without accumulating superfluities; for which they would never be tempted to labour, if they had not a prospect of obtaining other things for these, which they look upon either as necessities, or things desirable at least; and these, whatever they are, commodities, curiosities, or conveniencies, can be only reasonably expected, from an access with those superfluities, to quick and certain markets; the first and most immediate advantage derived from navigable rivers (b). Hence the country is so much better improved, and lands bear the higher price, from their lying near them (c). A circumstance this of very obvious benefit, but at the same time productive of many more benefits; since, after all, the thorough cultivation of a country, and the turning every spot of it some way or other to the use of man, is the infallible characteristic of a thriving country, the ultimate object of all rational and genuine policy, and the true source of real and lasting happiness to the people who possess it (d).

This will appear more fully, and in a still clearer and more convincing light, if we consider the great difficulty, or rather impossibility, of attempting many kinds of improvements, at a distance from navigable rivers; at least till turning both those rivers, and the countries near them, to their proper uses; remove those natural impediments, and so render such

(z) Harris's History of Kent, p. 360. Atlas Maritimus et Commercialis, p. 20. Stukeley's Itinerarium Curiosum, p. 113, 114. — (a) It is to make the reader sensible of this, that we have inserted the ancient appellations, and not an affectation of transcribing British, Saxon, and Roman names. — (b) Camdeni Britannia, p. 443, 444. Childrey's Britannica Baconica, p. 117, 118. Salmon's New Survey of England, vol. i. p. 235, 285. — (c) Yarranton's England's Improvement, p. 179, 193. Houghton's Husbandry and Trade improved, vol. ii. p. 284, 285. — (d) See the very ingenious Mr. Wallace's Dissertation upon the numbers of mankind.

improvements practicable; from whence it comes to pass, that here, and in other countries, immense tracts of wood-land, have in process of time, degenerated into moors and morasses; and where forests once stood, which might have been of the highest utility, we find nothing but unprofitable mosses (*e*). Mountains pregnant with the richest mineral treasures, if there are no rivers near them, remain unwrought and unconsidered; and what, in other places more happily situated, afford employment, subsistence, wealth, to multitudes of industrious persons, rest undisturbed in these remote receptacles, and become absolutely useless, and of no value (*f*). A pregnant instance of this may be derived from the collieries in the northern counties, and in Wales. The ports of Newcastle and Sunderland, on the East side of this island, together with those of Whitehaven and Swanzey on the West, supply not only this, but foreign countries, with a commodity of the most general use, and consequently of the quickest sale, and greatest value (*g*). Not that they are wanting in other places, but because the means of transporting them is wanting; and of what prodigious consequence these BLACK INDIES, as some have humourously called them, really are, let the number of people concerned in digging and raising them; the expensive engines; the much more expensive roads, for bringing them soonest to the water side; the multitude of ships employed in transporting; the number of seamen who navigate these; the vast revenue arising to the public; and the immense estates which have accrued from them to private persons; when duly and deliberately considered, most incontestably declare (*h*).

It is chiefly in the great towns, seated on the navigable rivers, that manual arts and manufactures are most effectually managed; by which a comfortable subsistence is supplied in so vast a variety of ways to the multitudes who spend their time, and bestow their labour, in carrying them on (*i*). In truth, it is the convenience arising from the cheapness of water-carriage, that may be said to invite, to maintain, to augment, to propagate, and to multiply, these admirable and useful inventions, which do so much honour to the human understanding; and contribute so evidently to the felicity of the human race, as to become the

(*e*) All this will appear plain and incontestible, upon consulting what Doctor Plott has said in his Natural History of Staffordshire; the Earl of Cromarty's Letters in the philosophical transactions of the Royal Society; and Archbishop King's papers, at the close of the Irish edition of Boet's Natural History of that island; by which the proofs extend to all the three kingdoms. — (*f*) Hutton's Discourse on Mines in England. Select Essays on Commerce, Agriculture, Mines, and Fisheries, p. 107. Robinson's Natural History of Westmoreland and Cumberland. — (*g*) See the additions to Camden, in the Counties of Northumberland, Cumberland, and Durham. — (*h*) The History of Newcastle upon Tyne, by Henry Bourn, M. A. chap. xiii. Salmon's New Survey of England, vol. i. p. 184. Atlas Maritimus et Commercialis, p. 5. — (*i*) AVONIA, or a transient view of making rivers in this Kingdom navigable, occasioned by observing the situation of the city of Salisbury upon the Avon, by R. S. 1675, 8vo.

essential marks in distinguishing more or less civilized nations (*k*). To render this more obvious, it may not be amiss to mention, as the first instance occurring to my mind, the salt pans at Newcastle, Lymington, and Swansey, which enable those places to distribute such immense quantities of a valuable manufacture in continual demand, because they have great plenty of fuel, and can send it cheapest to the most distant markets (*l*). It is from these improvements of natural blessings, by the skill, the labour, and the indefatigable industry, of man, that a long series of valuable, though temporary advantages, arise to individuals, and a succession of never-ending benefits to the nation of which they are composed (*m*); as, by pursuing these rude hints, will abundantly appear to every judicious reader's serious reflection; and surely his thoughts cannot be employed on a more profitable, or pleasing subject.

IN order to facilitate these meditations, let us impartially consider the present condition of South Britain, how near she approaches in most things, and in some excels, countries that, from the nature of their productions, are supposed to have richer soils, and a warmer climate; it will appear that these advantages flow in a great measure from the number of these large and navigable rivers, which enable the inhabitants not only to cultivate to a great extent, but to improve also in a very high degree, the several parts of the country in which they dwell (*n*). It is by no means my intention to magnify this island, by depreciating other countries; and it is for this reason that I avoid naming any; but what I aim at, is so to explain the true cause of our improvements, as that it may prevent all possibility of mistake, and thereby fix the attention of my countrymen to methods that never will deceive them (*o*). Look into the description of any of those countries which are allowed to be less populous, less thriving, and have less commerce, than South Britain, and you will find that even in these, the soil is at least tolerably cultivated, and consequently well inhabited, on the sides of great rivers; which shews their importance every-where, and the great indulgence of Providence in the copious distribution of them in this country, which so much alleviates the toil of our peasants, and puts it in their power, with so much less labour, to accomplish all that they can reasonably desire (*p*).

(*k*) *Fratri Rogeri Bacon Opus Majus*, Lond. 1733, fol. See also the *New Atlantis* of Lord Bacon, and Doctor Plott's *Natural History of Oxfordshire*, chap. ix. — (*l*) See the additions to the last edition of Camden's *Britannia*. Doctor Brownrig's *Art of making common salt*, p. 49, 50. *Atlas Maritimus et Commercialis*, p. 5, 6, 12. — (*m*) Bacon's *Works* abridged by Doctor Shaw, vol. ii. p. 193. D. de Sully, *OEconomies Royales et Servitudes Loyales*, Rouen, 1642, 12mo. tom. vii. p. 273, 274. Gronden en Maximen van de Republieck van Holland, i. deel, cap. 9. — (*n*) *The Glory of England*, by Thomas Gainsford, London, 1618, 4to. — (*o*) See Lord Bacon's *Prudent Statesman* in Shaw's abridgement of his *Works*, vol. ii. p. 139. — (*p*) It is not meant that our husbandmen take less pains in their occupation than in other countries, for the contrary is true; but then this labour is in their occupation, the produce of it comes to market, and they thrive and live well.

BUT methinks I hear it objected, that I not only push this matter too far, but even contradict myself, by giving at present the palm to South Britain, after having already bestowed it upon the Dutch, in this very particular, or at least confessed, that, in point of inland navigation, they were second to none but the Chinese (*q*). Whatever I said in respect to either of these nations, was certainly advanced upon just grounds, and at the same time intended to awaken our attention; and with the same view I state this objection. But allowing it to be well founded, as to the benefits which are derived from it by the Dutch, the extent of their country being compared with ours, yet it no way contradicts what in this chapter I have advanced; for, in the first place, though the inland navigation, which the inhabitants of the united provinces carry on, is in itself very great, and the profits arising from it prodigious, yet few of those rivers lie in their country; and consequently this, with respect to them, is in reality a foreign commerce (*r*). In the next place, give me leave say, that in these provinces, and even in China itself, a great part of their water-carriage is managed by the help of artificial canals (*s*); so that, all circumstances considered, the advantages they derive from thence very strongly supports, instead of detracting in the least from the doctrine that I labour to establish: and this I think is so evident from matters of fact, that there is no necessity for my insisting upon it further. If there were, I could very easily shew, from the concurrent testimonies of the most esteemed authors, that the Dutch, or the Chinese, cannot possibly excel us more in their indefatigable industry in making and navigating such a multitude of canals, than England does Holland and China both, in the number of her navigable rivers; which consequently puts all the advantages of such commerce and communication into the hands of the natives of this country, on terms so much the more easy.

THAT real, as well as apparent superiority, which this kingdom has attained over the rest of the European branches of the British empire, arises from no cause (the seat of government excepted) so much as this; all the other parts being visibly much inferior to England in the number, disposition, and nature of their navigable rivers (*t*). Hence the inhabitants of this country can, with so much ease, bring so great a part of

(*q*) See Political Survey of Great Britain, chap. i. p. 15. — (*r*) Gronden en Maximen van de Republieck van Holland, i. deel, cap. 7. Sir William Temple's observations on the united provinces, chap. iii. Janicon Etat present de la Republique des Provinces Unies, tom. i. p. 4, 5, 6, 7. — (*s*) P. Le Comte, Nouveaux memoires sur l'Etat present de la Chine, tom. i. p. 149, 156. Du Halde Description de l'Empire de la Chine, tom. ii. p. 186, 190. Atlas Maritimus et Commercialis, p. 120, 121, 122. — (*t*) Harrison's Description of Britain, book i. chap. 11, 16. Sir William Monson's Naval Tracts, book iii. Doctor Boat's Natural History of Ireland, chap. viii.

it into cultivation; which furnishing in plenty the materials for trade and commerce, lead men here, to what they are driven in other places by necessity (*u*). Hence art attracts art, one manufacture begets another, and diligence spreads on every side; for industry, as well as idleness, may be communicated; and it is easy to discern, that, in a thriving country, all degrees of people have a vivacity, that is not seen elsewhere. It is owing to this spirit, and the prosperity that naturally attends it, that in some places inland navigation and foreign commerce have in South Britain been pushed so far, as that there is more business done, and more seamen employed, in a single port, than in a whole country, and by a whole nation, elsewhere, who yet have some trade and commerce too (*w*). I could be particular, that is, I could name the port, nay, more than one, and the country also; but I see no end this would answer, and shall content myself with adding farther, that there are counties in South Britain very capable of carrying on as great and as beneficial a commerce as some potent states. As for instance, Devonshire, which looking on one side towards the Bristol and St. George's, and on the other towards the British Channel, has many convenient, and some capacious, harbours upon both (*x*). Besides, as this spacious pleasant county hath an excellent soil, a very mild climate, and is also a fourth part more in extent than the province of Holland (*y*), endowed with most of those advantages by nature, that have been in that country attained by much labour, and at great cost, without being tied to any of those expences that are indispensably requisite there, for the preservation of such dear-bought conveniencies, we may reasonably presume that it is capable of maintaining the like, or a greater number of people, and that too in as good or better condition (*z*). If this be fairly alledged of a single county, and that it is so I submit to the judgment of the candid reader, what improvements is the whole able to receive? And how much greater and more populous, may its other counties become, by barely attending to their own interests, and turning the vast conveniencies that invite or rather solicit, them on every side, to their proper uses? To this, whenever they seriously apply their talents, none are more sagacious or acute, none more assiduous or indefatigable, than themselves; as might be very easily shewn from numberless examples; the very wonderful things already performed in some places, proving what hereafter may be done in all, by such a people (*a*).

THIS being the case, as most certainly it is, we must see plainly why this part of these islands hath thriven more than

(*u*) Gee's Trade and Navigation of Great Britain considered, p. 5. 6. 7. — (*w*) See all these points farther illustrated, and several convincing proofs alledged in support of them, in the subsequent part of this chapter. — (*x*) Risdon's Survey of Devonshire, vol. i. p. 68, 69, 90, 100; vol. ii. p. 163, 187, 190: — (*y*) Camdeni Britannia, p. 144. Speed's British Empire, fol. 19. Willis's Notitia Parliamentaria, vol. ii. p. 237. — (*z*) Templeman's Survey, pl. i, vi. — (*a*) Evelyn's Sylva, chap. viii.

the rest, attracted strangers to swell the number of her inhabitants, while North Britain and Ireland, from the want of these benefits, not only contributed to augment those numbers, but poured continually, and are still pouring, their offspring into other countries; it being natural for individuals to seek subsistence where it seems easiest to be acquired, rather than to attempt the double task of improving their own and their country's fortune at the same time (*b*). As soon as leisure and attention to the arts of peace excited a spirit of improvement in South Britain, her natural advantages, and amongst them this particularly, repaid their labours so speedily, and so abundantly, that people went on cheerfully, and soon acquired that plenty and independence that endeared their country to them, and attracted ingenious and industrious persons from all quarters; which added manufactures to agriculture, and rendered those places populous, which their well-chosen situations on her great rivers, from the first demonstrated improvable, and which the moderate application of their inhabitants had now made commodious, with a certain prospect of becoming daily more so (*c*). But besides accounting easily and probably for the present apparent superiority of South Britain, this also shews that her superiority is permanent, and that what she has thus acquired, it will be ever in her power to maintain (*d*). For as this advantage of her navigable rivers, with all the happy consequences that attend it, already belongs to, and has been turned to much to her benefit, it must likewise be remembered that it is her patrimony, the portion bestowed upon her by nature, and which therefore can never be taken from her. A circumstance that, duly considered, ought to set her above the fear of rivals, and teach her to enjoy, without anxiety, that superiority she can never lose, and see with complacency the improvements of her younger sisters; which, however conducive to their interests in the first instance, must in the event be equally conducive to her grandeur; and which can never therefore produce to them any prosperity that may emulate, much less prejudice, her own power.

BUT to put this matter still farther out of all dispute, it may not be improper to compare, in this respect, the state of South Britain in times past, with its situation at present; from whence it will evidently appear, that it cannot excel any other country more at this day, than it does itself in that state to which it was reduced soon after the Norman conquest (*e*). We were then indeed in possession of all these natural advantages, nay, some of our rivers, and many of our ports, were in a better condition than they are now; but most certainly we did not so well comprehend the uses that could be derived, or the

(*b*) Wallace's Dissertation upon the Number of Mankind, p. 149. — (*c*) Thoughts on trade and public spirit, London, 1716, 8vo. p. 23. — (*d*) Seasonable Remarks on trade, London, 1729, 8vo. p. 22, 23, 24. — (*e*) Chronicon Saxonicum, p. 193. 194. Textus Rossensis, cap. xxxiv. Aluredi Beverlacenſis Annales, lib. ix. p. 72, 73, 74.

benefits that might be drawn from them (*f*). Some of these, it is true, are so obvious, that they could not but be known, and, in consequence of this, some pains were taken, as our laws, our records, and histories shew, to improve them. But these methods were very poor and imperfect, in comparison of the end, as is evident from the little progress that was made by their assistance (*g*). The truth of the matter is, that the form of our constitution, as it then stood, was by no means favourable to such improvements. The power of the crown was indeed sometimes exerted towards promoting commerce; but these very instances plainly shew, that without an application to, and approbation of the crown, there was very little of this kind left within the ability of the subject. The power of the nobility also was, if not more exorbitant, at least more oppressive, than that of the crown; and which may seem strange, but is nevertheless true, the power of corporations derived from the favour of the crown, and of the nobility, for the support and increase of trade, was too frequently employed to cramp and confine it (*h*). It was not till the days of Henry the Seventh that we came to have any true notions of the advantages resulting from an extensive commerce; nor is there any reason to wonder that these were at first indistinct, sometimes rightly and beneficially ordered, sometimes misapplied, and often ill-conducted (*i*). Even towards the end of Queen Elizabeth's reign, upon a strict survey of the whole marine of England, the number of seamen amounted but to two thirds of what now belong to the port of London only (*k*); and, in point of tonnage, the vessels of all sorts in this kingdom were very much below, not only what belong now to that port, but to several others in this island (*l*). But to descend from this general state of things to some particulars.

IN speaking of the Tyne, we passed the more lightly over Newcastle, as intending to mention it again upon this occasion. The Romans, with their usual sagacity, fixed one of their stations at Gabrosentum, upon the South side of the river Tyne, whence the British name Gabr cent, in English, Goat's Head, according to the pronunciation in that country, Gateshead; and a very considerable place it was in those times, being close to the wall which defended the Roman province from the incursions of their northern neighbours (*m*). This very circum-

(*f*) Thomas Hearne's Collection of curious Discourses, written by eminent Antiquaries, upon several heads of our English Antiquities, p. 1, 15. — (*g*) See Doctor Brady's Treatise of Boroughs, and Madox's Introduction to his Firma Burgi, in which the true state of our towns in ancient times plainly appears. — (*h*) Nathaniel Bacon's Discourse on the laws and government in England, P. i. chap. 58. — (*i*) He strenuously recommended trade and manufactures to the care of parliament. Bacon's Reign of Henry VII. p. 59. — (*k*) In A. D. 1582, Mariners of all sorts in England were 14,295. In A. D. 1732, that is, one hundred and fifty years after, the seamen of the ships registered in the port of London, were 21,797. — (*l*) According to the Survey in A. D. 1582, the whole amounted to 71,450 tons. In A. D. 1732, the registered shipping in the port of London, amounted to 178,557 tons. — (*m*) Camdeni Britannia, p. 606, 607. Lelandi Collectanea, tom. i. p. 540. Baxteri Glossarium Antiquitatum Britannicarum, p. 125.

stance proved the occasion of its ruin, when those warlike, though unpolished people, overturning that barrier, poured like an inundation into these parts. The Saxons, who respected extremely the situations chosen by the Romans, erected a town on the other side of the river, to which, from the number of convents, and other religious edifices therein, they gave the name of Monkchester; and this in process of time became a considerable place (*n*). Robert, the eldest son of the conqueror, being sent by his father with a great army into this county against Malcolme, King of Scots, easily discerned with what incomparable advantage a fortress might be built here; and executed his design so completely, that, from his work, it took thenceforwards the name of NEW CASTLE (*o*). The town was afterwards fortified for the same reason; in consequence of which it grew large and populous, by the resort of people from all the counties adjacent, who were desirous of living under the protection of a strong place. Such was the genius of those times, when WAR was the principal object of all the northern nations; and the value of places estimated according as they were situated or disposed to be more or less applicable to that state. And as no town in those parts could enter into competition with this, in serving as a defence to the country behind it, and giving an immediate check to invaders, it grew every day more and more conspicuous, especially when experience in many instances had justified its capacity of answering all the purposes of such a fortress. By degrees, however, in the intervals of peace, the beauty and convenience of the river forced its inhabitants to observe how well their town stood for trade; and thus it became gradually eminent in quality of a port, as well as a barrier; and in all these capacities we find it was favoured by our Norman monarchs (*p*). The discovery of coal mines in its neighbourhood, about the beginning of the fifteenth century, was a new accession of wealth to the people of Newcastle, turned also to the benefit of the crown, and procured them fresh privileges. Henry VI. made them independent of the county of Northumberland, by allowing the townsmen to chuse sheriffs, and so it became a county of itself (*q*). After the accession of King James the First to the crown of England, it flourished more than ever; but the civil war in the succeeding reign reduced its lustre; and the advantages taken by some, who were powerful in those disordered times, to promote their private interests at the expence of the public, brought considerable detriment to the navigation of the river, the effects of which are still felt (*r*).

(*n*) Chron. Lindisfarn. (Munecacæstre) Simon of Durham assures us, that Monkchester was the name of the place, now called Newcastle. — (*o*) Aluredi Beverlacenſis Annales, lib. ix. p. 67. Lelandi Collectanea, tom. ii. p. 308. Polydor. Virgil. Hiſt. Angl. p. 208. Johan. de Fordun Scotichronicon, fol. 140, 141. — (*p*) Mag. Rot. 3. Joh. Rot 18. a tit. Northumb. Leland's Itinerary, tom. v. fol. 104. Cotton's Abridgement of the records in the Tower of London, p. 134, 408, 596, 600, 679. — (*q*) Lambard's Historical and Topographical Dictionary, p. 207, 225. Camdeni Britannia, 667. — (*r*) Bourne's History of the town and county of Newcastle upon Tyne, p. 173.

AFTER the restoration of King Charles the Second, the town received many marks of royal favour; and also in the succeeding reign, which the inhabitants very gratefully acknowledged, as they also very assiduously, as well as successfully improved; and the consumption of the coals becoming much more general, that trade augmented amazingly, persons of great fortune embarked in the management of the mines, and at a prodigious expence, rendered the carriage of them to the river easy and cheap, by bringing vast quantities thither in a small space of time. All which, by drawing into this neighbourhood an immense concourse of people, who were to be fed, clothed, and lodged, out of the fruits of their own industry, occasioned the lands on every side to be cultivated; their produce brought to a quick and beneficial market, caused their rents to be well paid; and raised the value of land far above what it had been in times past, or could ever have been, but in consequence of these improvements, and the prospect of their continuance (*f*). In this, and in succeeding reigns, various statutes were made for regulating and improving this trade, the profits arising from which enabled the inhabitants to embark in many others, such as salt works, glass works, manufacturing of iron, besides their old trade in grindstones (*t*). In consequence of these advantages, not only the ancient suburb of Gateshead, which lies in the bishoprick of Durham, increased prodigiously, but also the towns of North and South Shields, and many villages along the river side, which may be properly styled the port of Newcastle (*u*). About the close of the last century it was computed that the trade had doubled in fifty years, as it was certainly double even at that period to what it was at the demise of Queen Elizabeth; and we have very good grounds to believe that it is now double in all respects, that is, in the tonnage of ships, number of seamen, and amount of its trade, to what it was at the beginning of this century (*w*). We will add that this is, as indeed it always has been, one of the most respectable and best governed corporations in Britain, to which in a great measure its constant and very remarkable flow of prosperity may be ascribed. The mayor lives in a mansion-house, with all necessary officers and attendants, at the town's expence, with an annual allowance of six hundred pounds; and the corporation estate is held to be of the value of nine thousand pounds a year. The merchants' exchange is a very noble edifice, frequented by traders of fair characters, as well as fair fortunes; the quay, if we except Yarmouth, is equal to any

(*f*) Chorographia, or a Survey of Newcastle upon Tyne, by William Grey, 1649, 4to. Robert's Map of Commerce, p. 292. England's Grievances in respect to the Coal Trade, 1549, 4to.—(*t*) Stat. xxx. Car. II. cap. 8. §. 2. 6 & 7 Will. III. cap. 15, §. 1. 1 Annæ, cap. 9, §. 3. 2 Geo. II. cap. 10, §. 2. 5 Geo. II. cap. 20, §. 2.—(*u*) Grey's Survey of Newcastle upon Tyne. Gardiner's Grievances of England in the Coal Trade. Bourne's History of the town and county of Newcastle, chap. xiii.—(*w*) Houghton's Collections on Husbandry and Trade, vol. ii. p. 153. Complete English Tradesman, chap. xlvi.

thing of the like nature in this island; the churches here are capacious and beautiful; and in respect to public charities, whether we regard their extent or distribution, they are such as do honour to the place, and afford persons unfortunate, though industrious, a very comfortable retreat (*x*). This shews that it was not without reason we ventured to compare Newcastle with Lyons (*y*); and it proves at the same time, that a port the most flourishing, and the most favoured, in the days of our ancestors, is, out of all comparison, more wealthy, more populous, and carries on a much more extensive trade in ours (*z*).

FROM this single instance, when maturely weighed, the judicious reader must discern, that, with all the encouragements the nature of our ancient constitution would allow; the natural advantage of so fine a port, capable of holding many hundred of large ships with perfect ease, and as perfect safety; was able, in the space of five hundred years, to raise it only to an eighth part of that trade, which its inhabitants enjoy at present. If we may be permitted to dwell a little longer on an instance of so great consequence towards explaining and confirming what has been delivered hitherto in this chapter, we would recapitulate a little more distinctly the immediate and effectual causes of this singular event, by which so much more has been done in the space of one hundred and fifty years, than before in five hundred. These causes then seem to be, taking them as they fall in order of time, what follows. The union of the crowns, which made a great alteration in the condition of the neighbouring people, who borrowing spirit from safety, began to cultivate thoroughly a country no longer exposed either to hostile or prædatory incursions; gave the first spur to the traffic of the place (*a*). The destruction of our woods, which was very great during the preceding part of the last century, was another help, by creating a continual demand for the staple commodity of Newcastle; this furnished the merchants with stocks for foreign trade, and put many others of the inhabitants that they might supply them, on manufactures; ship-building necessarily came in amongst the rest, which as it every-where does, brought a numerous train of other handy-craft trades as its attendants (*b*). The union of the two nations was another

(*x*) Bourne's History of the Town and County of Newcastle upon Tyne. Additions to the last Edition of Camden's Britannia. — (*y*) The three great and envied privileges of this city are, a bank, a course of exchange, and a court merchant, which are commercial advantages, worthy to be considered here. — (*z*) Yet the port and the trade both (as we shall see) are capable of very great improvements; so that possibly posterity may find ground for the like remark. — (*a*) Speed's British Empire, fol. 89. The trade's increase, by J. R. London, 1615, 4to. Sir Walter Raleigh's Discourse on the Invention of Shipping, p. 59. — (*b*) See the Article of Newcastle in the second Volume of Colliers General Dictionary. Brome's Journey through England, Scotland, and Wales, p. 166. The grand concern of England, contained in several proposals, submitted to the consideration of parliament, Lond. 1673, 4to. Prop. xii.

advantage, which enhanced all the rest, by removing the only checks to which the commerce of this thriving place was still subject (*c*). This made the merchants there, factors for what were before considered as two kingdoms; and as it became then, it has continued, the great emporium of the north parts of the one, and the south parts of the other, ever since (*d*). But this prodigious growth affords not the least room to fear that it may either speedily decay, or, in process of time, sink as gradually as it rose. On the contrary, its foundations are so well laid, the materials of its commerce so copious, and its architects are so sagacious and expert, that, without diminishing its strength, a multitude of very cogent arguments might be brought to prove, they will in a longer course of ages widen their basis, and continue to raise this structure still higher and higher.

As our ancestors did not clearly comprehend to what extent the advantages derived from nature might be carried, or if they did, were by the then prevailing systems of policy restrained, so they were yet more erroneous in the notions they formed, as to the imperfections to which some of our ports are certainly liable. One of the ablest seamen in the reign of Queen Elizabeth informs us, that there were but three harbours to the north of any consequence, Harwich, Lynn, and Hull; and, as to the two last he tells us further, they were frequented most by ships of their own, were full of danger and sands, little known to any others, and therefore not much to be insisted upon (*e*). It is plain that he had no foresight, that these two ports of which he speaks so contemptuously, would, in the space of a century and a half, come to have more ships, seamen, and trade, than any harbour this island had in his time; and, no doubt, would have treated as visionary any intimation of those improvements that are visible to us at this day (*f*). Each of these ports set up in effect upon the trade to Iceland, for catching and curing of cod; which, because it was carried on by a common stock, gave the name of Stock Fish to this commodity (*g*). But, in a very short time, the inhabitants of both places not only fell into other branches of trade, but set up manufactures in both towns; and this causing a great resort of persons of all ages, who were inclined either by labour or industry to earn their own livings, filled these thriving places with numbers of people, and created consequently a growing demand for provisions, and the other necessities of life; the adjacent villages became better peopled, and the country, for many miles round, better cultivated. This occasioned a con-

(*c*) *Atlas Maritimus et Commercialis*, p. 5.—(*d*) *Magna Britannia et Hibernia*, vol. iii. p. 601. Bourne's History of Newcastle; and the Additions to Camden's Britannia.—(*e*) Sir William Monson's *Naval Tracts*, book iii. p. 378; neither was he at all singular in his opinion.—(*f*) In A. D. 1728, there came, as appears by the custom house books (exclusive of their other trade), 232 ships from these two ports to that of London; whereas A. D. 1582, there belonged to London but 129 ships and vessels of all sorts.—(*g*) Hockluyt's Collection of voyages, vol. i. p. 122. Brome's travels over England, Scotland, and Wales, p. 144, 145, 146.

siderable coast trade to furnish these people with the materials requisite for their respective employments; and thus, as will always be the case, one species of industry exciting and supporting another, these ports grew imperceptibly greater; till their consequence in the Dutch wars drawing the attention of the government, procured them various assistances at a large expence, which produced a brisk circulation, and thereby adding spirit and substance to their trade, made that at length what it now is (*h*). The original branch of commerce indeed is long ago much decayed, not from the want of abilities to carry it on, but because others more lucrative have been gradually introduced (*i*); and thus it appears, that though there may be some impediments and obstacles which for a time retard the progress of maritime places, yet these, by diligence and application, may be conquered, and when this is once done, they are in a manner overlooked (*k*); nay, from the very change of circumstances, are sometimes considered in succeeding ages in the light of advantages, as rendering that navigation difficult to enemies and strangers, which to those who are engaged in it, is equally easy and expeditious. These instances, therefore, of the fallibility of our ancestors, should render us more circumspect in cases of a like nature.

WE find in Queen Elizabeth's time, that Liverpool, which makes now so conspicuous a figure, was but just coming into notice (*l*); though, one would imagine, it was then a town reviving, rather than one lately founded, since we know it sent burgessees to parliament in the twenty-third and thirty-fifth years of the reign of Edward the First (*m*). But this had been long forgot, and the place had dwindled again into a village. That it rose once more, was owing to the accident of its affording a short and easy passage to Ireland, which, in the stirring reign of that queen, gradually supplied it with trade and inhabitants (*n*). This conveniency helped it also to those extraordinary privileges, that whoever became a freeman of this place, should from thence acquire the like freedom in the city of Bristol in England, and in Waterford and Wexford in Ireland (*o*). The peaceable reign of King James encouraged the cultivation of land, and the raising manufactures, in Lan-

(*h*) Additions to the English Translation of Camden's Britannia. Magna Britannia et Hibernia, vol. iii. p. 285, 290; vol. vi. p. 554, 548. Atlas Maritimus et Commercialis, p. 4.—(*i*) See the Statute passed in the reign of Edward VI. for Support of the Iceland Fishery. Trade's Increase, p. 19. Sir Thomas Browne's Account of Iceland, 1662.—(*k*) Mackrell's Account of King's Lynne, p. 3. Additions to the English Translation of Camden's Britannia. See the Articles of Lynn and Hull in Collier's large Historical and Geographical Dictionary.—(*l*) Camdeni Britannia, p. 612, p. 85, 270, 271.—(*m*) See the preface to the first volume of Browne Willis's Notitia Parliamentaria, p. xxi.—(*n*) Magna Britannia et Hibernia, vol. ii. p. 1281. Brome's Travels over England, Scotland, and Wales, p. 232.—(*o*) Camden's Britannia, Edition of A. D. 1695, in the Additions, col. 301.

cheshire, which proved very beneficial to this new port (*p*). The long rebellion in Ireland rendered it still more flourishing, as a great part of the succours from England were sent from thence. After the restoration, the inhabitants began to strike into the plantation trade, for which they lay very commodiously. Before the end of the last century, it was computed, and with great probability, that Liverpool was possessed of ten times the commerce it had at the beginning; which was an amazing progress, and makes it one of the fairest instances that could be brought for our purpose (*q*). At the very entrance of the present century, Liverpool was held to be the third sea port in England (*r*), was supposed to have augmented its commerce greatly in the next twenty years (*s*), and we can from good authority affirm, that in point of ships, seamen, and the public revenue, this port has doubled since that time. The principal internal causes which, as I have been informed, and they seem adequate to the effect, that have contributed to the quick growth of commerce here, which in other places rises so slowly, were these. The traders of this place have been ever remarkable for a frugality in management, which enables them to do every thing upon the cheapest terms, and to sell at the lowest prices. They admit all degrees of people, even their own servants, to employ the smallest sums in trade, by which they become interested in the event, and are the sooner in a condition to set up for themselves. Lastly, they have shewn a surprizing spirit in works of large expence for the improvement of the town and port; and, in a word, whatever may contribute to the public interest. Arts truly laudable, and which will never fail of success. The reader will judge from hence, what numerous benefits may be deduced from the natural advantage of a good navigable river, with a port at the mouth of it (*t*); since, as the trade increases, it continually draws supplies of commodities and manufactures from the adjacent country, and, in the space of a few years, equally changes the spirit of the people, and the appearance of the places (*u*) which they inhabit; plenty and neatness being the immediate descendants of industry; wealth and magnificence in process of time, springing from the same stock, and these, very frequently, in places that have been for a long time disregarded, decayed, or neglected. Truths which, however plain and obvious in themselves, can never be too seriously, too much, or too often considered.

As Liverpool is a port of prodigious commerce, raised to its present flourishing condition, since traffick was thought a point

(*p*) Plan of the British Commerce, p. 35, 270, 271. — (*q*) Additions to the English Translation of Camden, in the edition before recited. — (*r*) Leigh's Natural History of Lancashire, &c. book i. p. 21. — (*s*) Atlas Maritimus et Commercialis, p. 17. — (*t*) The reader will be pleased to remember, that every improvement of a navigable river, shews how all such rivers may be improved. — (*u*) All the great manufactures in Lancashire and Cheshire, are to be ascribed to the ports of Liverpool and Chester.

worthy of being considered in history; so to conclude this argument, Stockton upon Tees, which we have already mentioned (*w*), is a port of no despicable trade, that has started up almost within memory. At the restoration, it was a village so despicable, that the best house in it could hardly boast of any thing better than clay walls, and a thatched roof; and yet, near thirty years ago, there came in one year to the port of London, seventy-five vessels from thence (*y*); and the trade is much increased since. We might add a great many other examples to shew the unexpected effects of industry, as excited, encouraged, and rewarded, by the almost innumerable conveniences, afforded from this natural advantage of so many navigable rivers, and which, notwithstanding, were so long before they were improved at all, and are perhaps but very little improved, in comparison of what they may be, even in our times (*z*). But this leads us to another point of as much, if not more importance, than any of the rest.

WHATEVER benefits we derive from art, are commonly attained by much labour, require at the beginning constant attention, much cost to preserve them, and are easily forfeited by neglect; whereas the advantages we receive from nature, though far more considerable when improved, are not so liable to the vicissitudes of time; but after being overlooked, and that even for ages, remain still capable of being turned to great profit; of which many instances have been already given, and in the course of the work many more will appear. We have reason to hope, therefore, that, notwithstanding what has been done by our immediate ancestors in the improvement of so many rivers, which had been little, or not at all, attended to in ages preceding theirs, there are still enough left by them, in a state of being improved, to exercise our industry, and perhaps that of our posterity, for a long series of years to come. For the illustration of this remark, a few hints from the most remote, and of course least improved counties in South Britain, shall suffice. There are on the coast of Northumberland five or six rivers, which, though they make at present but a small figure, will hereafter, without doubt, rise into higher notice, and perhaps become as memorable as many that have been already considered (*a*). Not to insist on one or two that fall into the German Ocean, between Holy Island and Farne Island, we will begin with Warnemouth, or as it is styled in the custom house books, Warnewater, and is a creek

(*w*) See Political Survey of Great Britain, p. 143. — (*x*) Additions to Camden's Britannia, the edition printed A. D. 1695, col. 728, 783. — (*y*) The truth of this fact appears from the custom house books. — (*z*) It would have been thought madness in Queen Elizabeth's reign, to have surmized that the commerce of Liverpool should approach that of Bristol; but now, when we are, or should be better acquainted with commercial causes and effects, we may form more probable conjectures of what industry, properly supported, may produce. — (*a*) Camden's Britannia, p. 658. Speed's British Empire, fol. 89. N. Salmon's New Survey of England, vol. ii. p. 600.

to the port of Berwick (*q*). Aylmouth, which lies a few miles to the south of this, is another creek to the same port; at the mouth of the river Aln, upon which a little higher stands the town of Alnwick; which little port of Aylmouth, though scarce heard of some years ago, has now several vessels belonging to it (*c*). The river Cocket seems to be more improveable, as it is larger, and runs a longer course (*d*). The river Wansere, or Wanbeck, is not inferior to that (*e*); and what credit is due to our conjectures, as to these streams becoming gradually useful as well to inland trade as foreign commerce, the reader will the better judge, when he has seen what we have to offer in relation to Blythe Nook in the next chapter.

ON the opposite side of the island we find at least as many rivers that might make a remarkable figure, and yet are, at this juncture, very little, if at all regarded. We have already mentioned Solway Firth (*f*), which, though very fit for commerce, enjoys no other trade than what arises from the smuggling sloops, which continually pass to and from the Island of Man. There lies near it a very considerable bay, into which the river Wample falls on the north; and receives on the south, the joint streams of Waver and Wiza (*g*). Some think this bay is that which Ptolemy stiled Moricamba; a very sounding word, which being resolved into the British tongue, becomes Mor in Camva, and signifies the hollow or crooked sea. This might be either made a tolerable port, or, by running a dyke across it, might be turned into dry land (*i*). As little as we seem to consider this rough and rugged part of the world, it is certain no district of the island was either better known to, or had more care taken of it by the Romans. They fortified it both with sea and land walls; and, amongst other stations, had one called Volantium, near the village of Ellenburgh (*k*), at the mouth of the little river Eln, where, if I am not misinformed, there is something like a port stiled Ellenfoot, or Elnfoot. Not far to the south of this, where the Darwent and the Cocker fall into the sea, there is a place, called formerly Darwentfoot Haven, upon which stands the town of Workington (*l*), where these few years there has been a little trade; and it is said to have now fifty vessels belonging

(*b*) Speed's British Empire, fol. 90. Crouch's Book of Rates, p. 383. — (*c*) Leland's Itinerary, vol. vii. P. i. fol. 75, 79. Crouch ubi supra. Gentleman's Magazine, vol. xxvii. p. 74. — (*d*) Leland's Itinerary, vol. vii. P. i. fol. 74, 79. Camdeni Britannia, p. 669. He calls this river Coqueda. — (*e*) Leland's Itinerary, vol. vii. P. i. fol. 74. Camdeni Britannia, p. 668. — The Political Survey of Great Britain, vol. i. p. 144. — (*g*) At the beginning of the eighteenth volume of the Gentleman's Magazine, there is a survey of the north-west coast of England, performed at the expence of the proprietors of that work; and for the assistance derived from thence, I return them thanks — (*h*) Baxteri Glossarium Antiquitatum Britannicarum, p. 179. — (*i*) Gentleman's Magazine, vol. xviii. p. 291. — (*k*) Camdeni Britannia, p. 633, 635. Speed's British Empire, fol. 87. Magn. Britain. et Hibern. vol. i. p. 373. Baxteri Glossarium Antiquitatum Britannicarum, p. 253. — (*l*) Leland's Itinerary, vol. vii. fol. 71. Magn. Britan. et Hibern. vol. i. p. 372.

to it (*m*). At a very small expence this river might be made navigable up to Cockermouth, a place at present of note, exceedingly well seated for several branches of the woollen manufacture, this river running through it, which would, if boats came up thither, be of inexpressible benefit to the place, which is a borough, and at the same time of great convenience to the county in general (*n*). Near Morebby, supposed to be the Morbium of the Romans, is the harbour of Parton, in favour of which there have been two acts of parliament (*o*). At the mouth of the river Irt, there were formerly hopes of a pearl fishery (*p*); but there might certainly be a harbour made there, which would be of much more consequence. There are three rivers, of which the Esk is the most distinguishable, and navigable several miles by vessels of tolerable burthen, that in falling into the sea, surround Ravenglas, and make it a kind of peninsula. This has now a few ships, and is a creek to Whitehaven, the merchants residing in which town have sometimes built ships there, because materials and labour are cheaper, but will in time, probably, become of more consequence (*q*). We have many etymologies of this remarkable name; but the most probable is that of the judicious Baxter, who says, that in the British language it is Yr avon glas, that is, the Yellow River (*r*). The river Dudden, which separates Cumberland from Lancashire, is certainly capable of being rendered serviceable to both counties (*s*). To the south of this lies a great bay, made by the breach of the sea, which some learned persons are more inclined to think the Moricamba of Ptolemy, than that before-mentioned, into which falls the river Ken, or Can, where, I think, there is a small port, called Milnthorp, the only one in the county of Westmoreland. This river, notwithstanding its falls or cataracts, might unquestionably, with no very great expence, be much improved, and, considering the great manufacturing town of Kendal, called Kirkby Kendal, that is, the church in the vale of Can, to distinguish it from Kirby Lonsdale, or the church of the Lon, or Lun, in the same county, stands upon it, would be of no small advantage to a very large tract of country (*t*).

It is more than probable, that the importance of these instances may not, at the first reading, be perfectly understood, and therefore it is fit that I should explain it a little farther.

(*m*) Gentleman's Magazine, vol. xviii. p. 4. — (*n*) Leland's Itinerary, vol. vii. p. 71. Camdeni Britannia, p. 672. Willis's Notitia Parliamentaria, vol. ii. p. 112. — (*o*) Baxteri Glossarium Antiquitatum Britannicarum, p. 179. Stat. iv. Ann. cap. 18. §. 1. 2 Geo. I. cap. 16. §. 1. — (*p*) Magn. Britan. et Hibern. vol. i. p. 371, 372. These pearls are bred in a particular kind of mussels, and they call them shell-berries. — (*q*) Leland's Itinerary, vol. vii. fol. 68. Camdeni Britannia, p. 630. Gentleman's Magazine, vol. xviii. p. 292. — (*r*) Baxteri Glossarium Antiquitatum Britannicarum, p. 164. 165. — (*s*) Leland's Itinerary, vol. v. fol. 85; vol. vii. fol. 71. Camdeni Britannia, p. 639. Speed's British Empire, fol. 76. — (*t*) Leland's Itinerary, vol. vii. P. i. fol. 61, 62. Lambard's Historical and Topographical Dictionary, p. 166. Camdeni Britannia, p. 624.

In consulting authors, from whom it was reasonable to have expected the best account of these coasts, we found them, but more especially the North-West, treated as countries of so little hopes, as well as of so little consequence, that they are said not to have been surveyed at all (*u*). It was therefore high time to set this matter in a proper light, and to shew that there cannot well be a greater mistake. The counties of Northumberland, Cumberland, and Westmoreland, with that small part of Lancashire called Fourness Fells, contain an extent of land double to that of the province of Holland (*w*); but taking the people in this county at their highest estimation, they have never amounted to above one-eighth part of the inhabitants of that province (*x*). Yet it is universally allowed, that the air of these northern countries is clear and wholesome, so that the people in general enjoy good health, and live to a great age. The country is indeed in many places rocky and mountainous; but, notwithstanding that, it produces a great deal of corn; and grass enough to nourish abundance of cattle of a good size, as well as a prodigious quantity of sheep (*y*). If we should allow one-third of the whole country to be absolutely barren, there would be above a million and a half of acres of profitable land left. The inhabitants, in point of parts, are very ingenious; in point of morals, sober and frugal; in point of industry, hardy, robust, and indefatigable. The woollen manufacture was set up in these counties as soon as in any part of England, and still flourishes there in some degree (*z*); but the true reason why the numbers of people are here so thin, the country so little improved, and these mountains, which those who are the best judges confess to be full of metals of all kinds, remain, in a great measure, though not totally, unwrought; is not because rivers are wanting, but because those rivers are not hitherto so effectually improved, or rendered navigable, as far as they might be (*a*). This, whenever performed, would immediately bring their manufactures to a quick market, and, by making it easy for the inhabitants to get a livelihood on their native soil, contribute thereby to keep them at home. In proportion as the number of people increased, the lands would be better cultivated, their produce consumed upon the spot, and their mines wrought, in order to enable

(*u*) *Atlas Maritimus et Commercialis*, p. 27. *Cutler's Coasting Pilot*, p. 18. *Salmon's New Survey of England*, vol. ii. p. 636. — (*w*) *Templeman's Survey*, Pl. i, ii, vi. where he computes these counties to contain four thousand, and the Province of Holland one thousand eight hundred, square miles. — (*x*) *The Pensionary De Witt* computed the inhabitants of Holland at two millions and a half. Mr. Burroughs, in his *Batavia Illustrata*, puts them at three millions. But Mr. Templeman taking the medium, fixes them at two millions. The people in these counties are reckoned two hundred and fifty thousand souls; though this may be somewhat (in my own opinion) below the truth. — (*y*) See Speed, Camden, and the additions to the English translation of the *Britannia*; as also Bourne's *History of Newcastle*; and Robinson's *Natural History of Westmoreland and Cumberland*. — (*z*) *Stat. 13. Ric. II. cap. 10.* — (*a*) Robinson's *Natural History of Westmoreland and Cumberland*. *Cutler's Coasting Pilot*. *The New Survey of the North-West Coast of England*, in the eighteenth volume of the *Gentleman's Magazine*.
them

them to acquire what would then appear in their conceptions greater conveniencies (*b*). Thus the importance of what I have been so strenuously recommending evidently appears; and though it be true, that all the skill and labour of man could never alter the face of this country so much as to render it a PARADISE, yet, if there were a million of people in it, which it could very comfortably maintain, they, by bringing to light the hidden treasures of their despised mountains, would soon make it the land of OPHIR; and that, considering the estimation wealth is in at present, would do full as well.

As great and as evident as the benefits resulting from navigable rivers are, yet we find they have been often neglected through the self-interest, malice, or avarice, of men; and, where-ever this has been done, it ought to be repaired and guarded against for the future. The city of York, in the reign of Edward the Third, was looked upon as a sea port, and furnished one vessel to his great fleet, with nine men; and though it is not considered in that light now, yet I presume, it has still as good a title, since vessels of the burthen of seventy tons come up the Ouse, from the Humber, to this city, in consequence of many good laws, some of them very late ones, for preserving the navigation of this river (*d*); which, as the preambles of the old statutes recite, has been often in very great danger of being totally ruined, by contrivances for catching of fish (*e*); and it is to be hoped, and indeed hardly to be doubted, the interest of the whole county being concerned in the preservation of that stream, that the public advantage will ever take place, as it ought, of private views. This will be fully sufficient to those who are well acquainted with this county; but my subject requires that I should make it still plainer. The river Darwent passes by Malton, above which it is navigable, in consequence of a late statute (*f*). The Swale, from Richmond; the Eure, from Rippon and Boroughbridge; the Wharfe from Wetherby and Tadcaster; the Aire from Leeds; the Calder, from Wakefield (*g*); and the Don, from Doncaster and Rotherham (*h*), all carry their waters into the bed of the Ouse, and travel with that river into the Humber; whence the prodigious importance of its navigation becomes manifest, though to exhaust this subject, and to give the reader a comprehensive view of the value of the trade carried on by these rivers, and the profits arising from the manufactures, upon which this trade in a great measure depends, and the alteration that all this has made, in raising surprisingly the price of lands in that most noble and extensive county, might make a considerable treatise as useful and

(*b*) Camdeni Britannia, p. 631. Heton's Account of Mines, and the great benefit of them to this Nation, p. 153, 154. Leigh's Natural History of Lancashire, &c. p. 82. — (*c*) Roll of the great fleet of Edward the Third before Calice, extant in the king's great wardrobe, transcribed into Hackluyt's Collection of Voyages, vol. i. p. 118. — (*d*) Stat. 13 Geo. I. cap. 33. Drake's History of York, b. i. cap. 7. — (*e*) Leland's Itinerary, vol. v. fol. 91. 23 Hen. VIII. cap. 18. — (*f*) Stat. 1 Ann. St. i. cap. 20. — (*g*) Stat. 10 & 11 W. III. cap. 8. — (*h*) Stat. 1 Geo. I. cap. 20. 6 Geo. II. 9. §. 1.

instructive, as curious and entertaining. But this general idea being enough to set in a true point of light, how the improvement of a country necessarily follows the improvement of its rivers, we proceed.

THE like injuries have been done to the rivers that form the port of Southampton, and many laws have been made for repressing and putting the fisheries in them under proper regulations (*i*). In point of trade, this port has received equal benefit, from the favour, and prejudice from the sinister arts, of great men. King Philip landed there when he came to espouse Queen Mary (*k*), and, out of affection to the place, procured them large and very advantageous privileges; which were wrested from them again by the ambition and avarice of Robert Dudley, Earl of Leicester, as has been before hinted; and I mention it once more as a caution against all influence of this kind, which is utterly inconsistent with the views of a wise government, and the interest of a free people. Nor will it be amiss to observe, that, if we had room, other instances of this sort might be produced, particularly the spoiling the port of Exeter by Hugh Courtney, a potent Earl of Devonshire, in order to benefit the town of Topsham, where he was lord of the manor (*l*). But it is not barely the influence of great men that ought to be guarded against, but even the selfish views of bodies of men, as appears from what has been already said of the river Rother, the navigation of which, though of the utmost consequence to the trade of two great counties (*m*), has been extremely prejudiced, in order to add a few acres of meadow land to private property. The public necessities, indeed, may well warrant the sacrifice of any conveniency; but, even then, the mischief ought to be repaired as soon, and as effectually, as possible, and not left unattended to for ages, as was the case of the river Lea, or Lee, once navigable for ships as high as Hertford (*n*), to which the Danes came by this river, in the reign of King Alfred, who having blocked them up in the fortrels which they hastily erected there, deprived them of their ships, either by damming up the stream, so as to force it to flow over all the flat country adjacent, as some say (*o*), or by cutting three new channels, as others report (*p*). But in whatever way it was done, the river was spoiled, till within some-

(*i*) Stat. ii. Hen. VII. cap. 5; xiv. and xv. Hen. VIII. cap. 13. §. 2. — (*k*) Lambard's Topographical and Historical Dictionary, p. 140. — (*l*) Izack's remarkable Antiquities of the city of Exeter, p. 27, 38, 40, 44. — (*m*) Lelandi, Comment. in cygneam Cantionem, p. 75. Lambard's Topographical and Historical Dictionary, p. 212. Magna Britannia et Hibernia, vol. v. p. 500. — (*n*) There is an entertaining Account of this river in an old treatise, entitled, "A Tale of two Swannes, wherein is comprehended the original and increase of the river Lee, commonly called Ware River: together with the Antiquitie of sundrie places and townes seated upon the same. Pleasant to be read, and not altogether unprofitable to be unde stood, by W. Vallans, London, 1590, 4to. Reprinted by Mr. Hearne, in the fifth volume of Leland's Itinerary. — (*o*) Chronicon Saxonicum, p. 96, 97. Florent. Wigorn. — (*p*) Henr. Huntingt. Spelman's Life of Alfred, published by T. Hearne, p. 88. Selden's Notes on the twelfth Canto of Drayton's Polyolbion.

what more than a century past (*q*), when, with great labour and expence, it was so far repaired, and the navigation of it restored, that, as we see at this day, with equal conveniency to this city, and the county of Hertford, barges now come down from Ware with malt and corn, into the Thames, and return again laden with coals (*r*).

THERE is another circumstance in regard to rivers, which ought not to be passed over in silence, because, though hitherto practised in few instances, it may possibly be found useful and imitable in others. The ancient town of Beverley, in Yorkshire, derived to itself a very beneficial trade by a cut or canal, commonly called BEVERLEY BECK, of something more than three quarters of a mile, into the river Hull (*s*). At what time this was made does not appear. It was regarded as a work of antiquity in the reign of Henry the Eighth, when vessels of considerable burthen sailed up through it from the Humber, taking their cargoes on board, and unloading those cargoes, at the staiths of the respective traders to whom they were consigned, and this to the no small emolument of the inhabitants of Beverley (*t*). But through the alteration of times, and the want of a proper fund, this cut or canal not only became in a manner uselefs, but was in danger of becoming a nuisance (*u*); till, by an act of parliament, within our own memory, it was cleansed, made navigable again, and, in consequence of this, the trade of the town restored, not only to the benefit of the people of this town in particular, but in general of the country also in its neighbourhood (*w*). We have already remarked something of the same kind in respect to the city of Chichester, which has been equally successful (*x*), and the precedent therefore deserves to be recommended. But where-ever this shall be found practicable, it will be found as expedient to provide funds for the support of such navigable canals, which are, in truth, a kind of artificial rivers, as for the original cost of making them; since, like all other works of art, through the natural indolence of men, and their inclination to enjoy the present profit, and throw the burthen on posterity, they will soon fall to decay, and all the advantages that were procured by, will sink with them.

(*q*) Drayton's Polyolbion, Canto 16, where we have the complaint of the river Lee, for this injury, very pathetically told. — (*r*) Chauncey's History of Hertfordshire, p. 3. Additions to the English Translation of Camden. — (*s*) Lambert's Topographical Dictionary, p. 28. Camdeni Britannia, p. 573. Drayton's Polyolbion, Song 28. — (*t*) Leland's Itinerary, vol. i. fol. 50, 53; vol. vii. fol. 54. — (*u*) Additions to the English Translation of Camden's Britannia. Magna Britannia et Hibernia, vol. vi. p. 49. Brome's Travels over England, Scotland, and Wales, p. 147. — (*w*) Stat. xiii. Geo. 1. cap. 4. By which not only the necessary powers are granted for cleansing and widening the cut, but tolls also for keeping it in repair. — (*x*) Stat. xxvii. Eliz. cap. 22. § 2. Magna Britannia et Hibernia, vol. v. p. 536. Brome's Travels over England, Scotland, and Wales, p. 271. Atlas Maritimus et Commercialis, p. 11.

AFTER all that has been said in reference to augmenting the number, and removing obstructions in any of our navigable rivers, we will close this part of our subject with observing, that some improvements may be made even in those that are most considerable, and, of consequence, new helps furnished to their commerce. The Tyne, though so beautiful, and, in other respects, so commodious a river, as to afford a safe harbour for a thousand sail of large ships (*y*), yet has a bar of sand at the mouth of it, on which there is not above two fathom at low water, and about three and an half at high; which renders it difficult and dangerous at the entrance, more especially as there lie near it certain rocks, called the Black Middens, which add not a little to this inconvenience (*z*). It is true, the Trinity-house of Newcastle maintain lights for the direction of vessels; and the seamen are so expert, that sometimes several hundred ships that lie waiting for a wind, unmoor, and sail over the bar, without the least accident (*a*). But, notwithstanding this, it would be an inexpressible advantage if, through the exertion of art, labour and expence, these impediments could be either wholly, or in a great measure removed. We have before hinted that something is requisite to render the navigation of the Tees more safe and convenient, which would be attended with very signal benefits, since, in all probability, Yarom, which was once a considerable place, might again revive; nor would this be less advantageous for Darlington, which is one of the greatest markets for the linen manufacture in England (*b*).

THE thorough improvement of the Dee has been long expected, several laws have been passed to encourage, and also to facilitate, the endeavours of the undertakers (*c*), and there is at present good reason to hope, that, as it is now carried on, it will in time, and that no long time either, be crowned with success. There was, in the reign of king Charles the Second, an act of parliament passed for improving the navigation of the Medway, above the town of Maidstone, in order to bring with greater ease to the royal yards, ship timber, iron ordnance, and other naval stores, from the wealds of Sussex and Kent (*d*); and for explaining, amending, and carrying, of this law into execution, there was another statute, made almost twenty years ago; and indeed the thing is of such great consequence, that it ought to be kept as much as possible in public view, till it can be fully compleated. In regard even to the river Thames, there have been suspicions, that, thro' want of at-

(*y*) Atlas Maritimus et Commercialis, p. 5. — (*z*) Bourn's History of Newcastle, p. 178. Cutler's Coasting Pilot, p. 5. — (*a*) Magna Britannia et Hibernia, vol. iii. p. 608. Atlas Maritimus et Commercialis, p. 5. — (*b*) Cutler's Coasting Pilot, p. 6. Additions to the English translation of Camden's Britannia. — (*c*) Stat. vi. Geo. II. cap. 30. §. 2; xxvi. Geo. II. — (*d*) This Act of 16 and 17 of Charles II. appears to have been a private act. — (*e*) The title of this, which was a public statute, was, "An act to revive, explain, and amend, an act of the 16 & 17 of Charles II. entitled, an act for rendering the river Medway navigable through the counties of Kent and Sussex."

tention, the bottom hath been suffered to rise, and the stream of course to become less deep (*f*). King Charles the Second, who was very intelligent in, and very attentive to things of this nature, is said to have had two very exact surveys made, one of the several depths of the river below bridge; which was executed by Sir Jonas Moore; the other, of the encroachments made upon it, by Mr. Collins, both very able men (*g*); which surveys were probably lodged with the brethren of the Trinity house. From the former of these it appeared, that, between the restoration and the year 1676, the bed of the river had risen above four feet (*f*). The many inconveniencies that must follow from the continuance of this mischief, even to so noble a river as this is, may be easily apprehended; and with far greater facility prevented by timely remedies, than they could be removed by any, when experience comes to give testimony of their bad effects (*i*). We see, therefore, in how many respects the rivers of South Britain still demand the care, and of consequence, are capable of rewarding the attention, of the present age (*k*), as well as they did those of our ancestors; and that there is no doubt to be made, the benefits derived from them may be pushed much farther than at present, as well as many new ones added to their number, by our industry and perseverance.

THE kindness of Providence, in this plenteous disposition of useful and pleasant rivers through the kingdom of England, or South Britain, though, simply considered, very conspicuous, is nevertheless as remarkable through the principality of Wales, which, for its extent, enjoys, in this respect, whatever is capable of exciting a prudent industry, to improve, by labour and skill, the bounties bestowed by nature to the most beneficial purposes. The county of Monmouth being anciently and naturally a Welch, though now reckoned an English county, we will begin with that, and so pass round from the Severn Sea, to what is called by seamen the water of Chester, and with us, the influx of the Dee. Both in their origin Welch streams, though South Britain enjoys them in their noblest state, and is enriched by the commodious ports, formed by their passage into the sea; though, in doing this, those look again upon the land from which they sprang.

THE Wye, which the natives call the Gwy, or Gouwy, in Latin Vaga, has its source within a mile of those of the Severn, in Montgomeryshire; and dividing Radnorshire from Brecknockshire, passes into Herefordshire, and then enters

(*f*) Harris's History of Kent, B. i. P. iii. p. 358. — (*g*) See the life of the right honourable Francis North, Lord Guilford, p. 286. — (*h*) The King, by his own experiments, is said to have found it some years before, risen above three feet, which probably produced those surveys. — (*i*) Several engines have been invented for cleansing rivers, and some have been encouraged here by parliament. — (*k*) Another, and very cogent argument, is the great ease with which, on proper application, laws of this kind are now obtained.

Monmouthshire, where it receives the Munnow, a little below Monmouth, and rolls with an augmented stream to Chepstow, which in Saxon signifies the Market, and two miles below falls into the Severn sea, after a course of more than fifty miles (*l*). Chepstow, called by the Britons Castlewent, is a good town, and has a considerable inland trade, a tolerable port, in which the tide rises to an extraordinary height. The inhabitants being remarkably active and industrious, draw to themselves a large share of trade from the adjacent counties, which abound in corn and provisions, and have a great intercourse, by the distribution and exportation of what they thus receive, with Gloucester and Bristol (*m*). The Uske, by the natives Uysc, in Latin Isca, and Ilcelegia, rising on the west side of Brecknockshire, runs a south-east course through that county and Monmouthshire; and having washed Abergavenny, Uske, and Carleon, at length turning directly south, reaches the Severn sea below Newport, by the Britons named Y Castell Newydd, where the river Ebwith also discharges its waters, which together make a commodious haven for vessels of a moderate size (*n*). There are, besides these, at least five very considerable rivers that fall into the sea on the coast of Monmouthshire.

THE river Rhymny, or Rompney, as we find it commonly written, divides Monmouth from Glamorganshire. Caerdiff, which the Britons call Caer Dyv, or Caer Dydh, stands a little above the mouth of the river Taff, and has a tolerable port, in which more business is done than in any of the former, which, in the custom-house dialect, are creeks to this (*o*). A little farther to the west, the Eluy falls into the sea, near Pennarth, which is also a creek (*p*). Cowbridge, in the language of the natives, Y vont baen, that is, the Stone Bridge, is a place of some note, a few miles above the haven, made by the Thawe, which falls into the sea between East Aberthawe

(*l*) Giraldi Cambrensis, *Itinerarium Cambriae*, lib. ii. cap. 2. Leland's *Itinerary*, vol. iv. fol. 176 a, v. 9, 10. Harrison's *Description of Britain*, p. 68. Lambard's *Topographical Dictionary*, p. 426. Drayton's *Polyolbion*, song 4. Camdeni *Britannia*, London, 1607, p. 437. *Cambria Triumphans*, or Britain in its perfect lustre, shewing the origin and antiquity of that illustrious nation; the succession of their kings and princes, from the first to King Charles of happy memory; the description of the country; the history of the ancient and modern estate; the manner of the investiture of the princes; with the coats of arms of the nobility; by Percy Enderbie, London, 1661, fol. p. 215. Rogers's *Memoirs of Monmouthshire*, chap. i. — (*m*) Leland's *Itinerary*, vol. v. Cutler's *Coasting Pilot*, p. 16. Rogers's *Memoirs of Monmouthshire*, chap. i. — (*n*) Leland's *Itinerary*, vol. v. fol. 7. Harrison's *Description of Britain*, p. 74, 75. Sir John Price's *Description of Wales*, p. 20. Camdeni *Britannia*, p. 492. Enderbie's *History of Wales*, p. 216. Rogers's *Memoirs of Monmouthshire*, chap. i. and ii. — (*o*) Lelandi *Genethliacon Eadverdi Principis Cambriae*, p. 29. Camdeni *Britannia*, p. 479. Crouch's *Complete View of the British Customs*, p. 383. (*p*) Edvardi *Luidii Adversaria*, p. 3. Crouch's *Complete View of the British Customs*, p. 383.

and West Aberthawe (*q*). Ogmor, perhaps for Eogmor, that is, Salmon-water, is a river of considerable size and course, which, before it falls into the sea, is joined by the Ewenny (*r*). The Avon, at no great distance, meets the sea a very little below Aberavon (*s*). Several rivers uniting with the Neath, or, as the natives call it, Nethe; by Leland stiled in Latin, Nidus, passing by the old town of that name, which of late begins once more to flourish, form a little haven at Briton Ferry (*t*). The principal place of trade, however, in the county, is what by the Britons was called Aber Tawi, the mouth of the river Tawi; by the Saxons, Swinefea, from porpoises, or sea hogs, common in these parts; and in our days Swansey, or Swanzy, from an ill-caught sound, without any meaning at all; where ships resort from different parts; and, on account of coal and culm sent to Bristol, and its having a constant intercourse with London, business is very brisk (*u*). It is a member of the port of Caerdiff, and has some creeks belonging to it (*w*).

As soon as we proceed into Caermarthenshire, or, as the Britons call it, Caermardynshire, we meet with Llanethy, at the mouth of a little river, which affords a tolerable haven. The county town, Caermardyn, which Leland calls in Latin, Maridunum, is justly esteemed the politest place in South Wales; and is at the same time celebrated for industry and attention to trade, lies on the Towy; and vessels of the burthen of an hundred tons come up to the town, which is healthy, neat, and thriving (*x*). We are assured by Speed, that in this county there are no less than twenty-eight rivers and rivulets worthy of notice (*y*).

IN Penbrokeshire we meet with every thing suitable to its ancient British name, implying that it is a maritime county, and so, without dispute, it is, if there be one in the world. On the bay of Tenby, mention will be made in its proper place. The Western Cledheu rises in the midst of the shire, and running south-east, joins the Kolllel, or, as it should be written, the Cylhelh; after which it continues its course, and, with a copious stream, visits Haverfordwest, by the Britons called Huf-

(*q*) Camdeni Britannia, p. 497. Sir John Prife's Description of Wales, p. 46. Lambard's Topographical and Historical Dictionary, p. 78.—(*r*) Edvardi Luce Adversaria, p. 4. Drayton's Polyolbion, song 4.—(*s*) Sir John Prife's Description of Wales, p. 19. Harrison's Description of Britain, p. 75.—(*t*) Giraldi Cambrensis, Itinerarium Cambriæ, lib. ii. cap. 8. Lelandi, Genethliacon Eadverdi Principis Cambriæ, p. 36. Lambard's Topographical Dictionary, p. 236. Harrison's Description of Britain, p. 76. Camdeni Britannia, p. 497, 498.—(*u*) Giraldi Cambriæ Itinerar. Lelandi, Genethliacon Eadverdi Principis Cambriæ, p. 36. Lambard's Topographical Dictionary, p. 340. Camdeni Britannia, p. 500.—(*w*) Crouch's Complete View of the British Customs, p. 383.—(*x*) Genethliacon Eadverdi Principis Cambriæ, voce, Maridunum. Lambard's Topographical Dictionary, p. 57. Camdeni Britannia.—(*y*) Cutler's Coasting Pilot, p. 16. fort.

forth, which, though roughly seated, and built irregularly, on the descent of a hill, is, nevertheless, a fair and flourishing town, and for this reason made a county of itself, and is daily increasing in domestic trade and foreign commerce (z).

It may not be amiss to remark (because it is not commonly known) that this is on good grounds held to have been the very cradle of our woollen manufacture. We have two distinct accounts of the settling of the Flemings in the district of Rofs, in Penbrokeshire. The one is, that escaping from a sudden inundation of the sea, which swallowed up that part of Flanders in which they dwelt, Henry the First invited them over hither, and sent them to inhabit this part of Wales. The other, which seems to be the more probable of the two, and related by a contemporary historian, is, that they came over at different times with the conqueror, and that his son, Henry the First, partly out of pique to the earl of Flanders, and partly to make court to the English nation, resolved to drive these Flemings, though they had served his father well, out of England; but was at length prevailed upon by his mother, Queen Matilda, to desist from his design, and to fix them here in Wales. It is agreed on all hands, that these Flemings were hearty friends to the English interest; and our old authors unanimously concur in giving them an excellent character. They say, they were hardy in the field, indefatigable in improving their lands, assiduous in trade, diligent in their manufactures; and that the same spirit which they discovered in improving the country during a time of peace, they manifested in defending it when attacked by the Welch; and their writers say the same thing, and that, from their language and complexions, the inhabitants of Rofs plainly shewed themselves to be a distinct people, and not of the same race with the other inhabitants of this county (a).

THENCE this river rolling on, meets with the Eastern Cledheu, which rising on the descent of Wrenny-vaur, or Wrenny-vair Hill, by a south-west course blends its waters with those of its sister river, and running first south, and then south-west, rush together through Milfordhaven, which Giraldus styles in Latin, Milverdicus Portus, into the Irish sea (b). This famous port the Britons called Aberdoygledheu, which is as much as to say, the Mouth of the two Swords (for Chedheu signifies a Sword), thereby plainly and truly attributing it to

(z) Leland's Itinerary, vol. v. fol. 28. Lambard's Topographical Dictionary, p. 147. Harrison's Description of Britain, p. 78. E. Luidii Adversaria, p. 14. Sir John Prife's Description of Wales, p. 18.—(a) Giraldi Cambrensis, Itinerar. Cambriae, lib. i. cap. 11. Gulielm. Malm'sbur. lib. v. H. Lhuyd, Descript. Brit. fol. 47. See also Doctor Powel's Note on Girald's Account. Lambard's Topographical and Historical Dictionary, p. 147. —(b) Drayton's Polyolbion, song 5. Camd. Britan. p. 510, 511. Sir John Prife's Description of Wales, p. 18.

these two rivers. We are told, that within its bosom there are five large bays, thirteen good roads, and sixteen safe creeks, in which, without a figure, a thousand ships of any size may lie, and not disturb each other (*c*). It is commonly allowed, nor indeed can the truth of it be disputed, that the haven of Milford is the most capacious, the most commodious, and the most secure port, in the British islands.

BUT, even in this singular and wonderful place, there are many harbours that want repair; and some very useful improvements might be made in others. As for instance, in Nangle Road, in Milfordhaven, at about half flood, all Nangle Slutch is covered; about the middle of which slutch, or ooze, there lie a parcel of straggling stones, called the Oyster Rocks, most of them loose, and about four feet high, which render the place very dangerous for vessels that are obliged to run in there when it blows too hard in the road; and the more so, because they do not appear at low water neap-tides, being quarter-tide stones. These, and the stones on Nangle Point, may be removed at the expence of one hundred pounds. Dale road and harbour is a ready outlet for small vessels, where they may ride in two or three fathom at low water. The pier, which lies now in ruins, would be very useful if repaired. In the time of Queen Elizabeth, before the Spanish invasion, there were two forts, begun at the entrance of Milford, one on each side, as may be seen in Speed's maps, called Nangle and Dale block houses, but were never finished. The situation of these block houses was very ill chosen, since a vessel being obliged to bring to, before she is well in the mouth of the haven, may either drive ashore on the rocks, and be lost, or at least miss the harbour. A small fort might be built on the Stack, and another on Sandyhaven Point, which would command the entrance of Milford haven, and not be liable to the former objection, or in any degree prejudice our own shipping. Pennarmouth, is the opening of that branch of the haven upon which Penbroke town lies, where the custom house of Milford is kept. The entrance or breadth between rock and rock, is but two hundred yards at high water, and one hundred and twelve yards at low water, and from nine to twelve feet deep. The navigation up this river to Penbroke town is much impeded, by the rubbish of the limestone quarries being thrown into the river; which ought to be prevented, or the place, in process of time, will be stopped up. Within Pennarmouth a dock might be made, which would contain all the vessels in England, and which would be, perhaps, the greatest thing in the whole world of that kind.

THE Carrs form a ridge of rocky ground, that runs almost across Milfordhaven, from Paterchurch, towards Llanstadwell,

(*c*) Harrison's Description of Britain, p. 78. Camdeni Britannia, p. 510. Cutler's Coasting Pilot. p. 16.

where it makes the channel narrow and difficult for strangers to follow; and as it doth not appear at low water neap-tides, it renders the place more hazardous. A pier of stones might be made upon that ridge, which would make to the eastward of it a harbour not to be equalled in Great Britain. Nayland is the place where sugars from Ireland are discharged, and pay the English duty at Penbroke; and here woollen yarn from Ireland was imported, when Milfordhaven was one of the ports allowed by act of parliament, but now all are open. At this place there is also a salt refinery, which supplies the whole country. Here might be made a dock a mile and a quarter in length, and vessels might lie at the dock head in four, six, or eight, fathom water. Laurennny is a creek where large ships take in coal and culm, which are brought them in barges from Cresswell, and they may lie here safe in three fathom at low water; but the place will be inevitably spoiled in a few years, unless care is taken to prevent vessels throwing their ballasts out in the channel. Blacktar Key, Lanshipping, Hook, Little Milford, Blackhill Key, &c. are also creeks higher up in Milfordhaven, where small vessels load coal, culm, and corn (*d*).

THIS maritime county affords us two more fine rivers. The first of these is the Gwyne, which falls into the sea below Fiscard, by the inhabitants called Abergwayne, where a small dry harbour might be made for the fishery, and other vessels, by repairing the upper pier, and extending it twenty yards, at the charge of perhaps two or three hundred pounds. But a very excellent road might be made, by filling up the sound between the rocks called the Cow and Calf, and the shore; the expence would not be above five thousand pounds, there being plenty of large loose stones near at hand. The other is the Newerne, which falls into the sea at Newport, named by the Britons, Trafdraeth, in Latin, Neveria. This was formerly a very safe port; at present it is just the contrary, from the rivers being driven to the rocks on the south side. There are many old piles to be seen at low water mark, where the bar has formerly been, and where it still ought to be, which by drawing porcupines, that is, large rollers armed with iron spikes, towed by boats over the sand bank, which might be done, would reduce the river into its old channel, and restore the port (*e*).

THE county of Penbroke abounds in many useful commodities, particularly in great quantities of that sort of coal called stone coal, the small pieces of which are stiled culm, which is very useful in drying malt, and is the cheapest and best firing in the world for hot-houses or garden stoves, burning long with a

(*d*) Stat. xxvi. Geo. II. Morris's Observations on the Harbours in Wales, p. 14, 15.—(*e*) Lelandi Genethliacon Eadverdi Principis Cambriæ, p. 36. Harrison's Description of Britain, p. 79. Camdeni Britannia, p. 518. Sir John Prife's Description of Wales, p. 17. Morris's Observat. on the Harbours in Wales, p. 12, 13.

bright red colour, and with very little flame or smoak, affording at the same time a strong and equal heat. There is also near Newport a good quarry of slate. In the sea cliffs, about Milfordhaven, appear veins of copper ore, of grey and purple, which are commonly very rich, and also of the yellow or sulphurous kind. Limestone is in such plenty, that the inhabitants use great quantities in the improvement of their arable land, which produces wheat, barley, oats, and rye, so that they export about twenty-five thousand quarters yearly, and possibly as many chaldrons of coal. At Milfordhaven there are excellent oysters, which are exported to Holland, and other places; and on the Porgus-bank, which lies about two leagues south-west of St. Anne's light-house, turbot and cod were formerly taken in vast quantities, and may be still taken, as I was informed by a very worthy gentleman of this country, who had a seat near the sea coast (*f*).

THE Tyvye separates Penbroke from Cardiganshire. This river flowing from a lake on the east side of the county, after running a south-west course of between thirty and forty miles, rolls into the Irish sea two miles below Cardigan, called from thence by the Britons, Aberteivi; to which it yields a good, and, on account of the valuable lead mines in this country, a well frequented haven. The Rheidiol is another copious stream, issuing out of that great storehouse of waters, Plinlimon-hill, rising within a mile of the Wye, and within thrice that distance of the Severn's source. After a moderate progress to the south-west, having the Ystwith running the same course, at no great distance, they fall, yet without joining, so near together into the sea, as to afford, or at least to have once afforded, a tolerable haven to Aberystwyth, which, though standing on the former of those rivers, takes its name from the latter, and is still a port of some little trade, but at the same time if a small expence was bestowed, capable of much more than it has (*g*). I will take the liberty, therefore, of adding here some farther account of this, at present, almost useless haven, and the means that have been proposed for restoring it. There is in the neighbourhood, as we shall presently see, one of the greatest fisheries in Wales, but there is at least one half of the season lost for want of a good harbour; which also would be very convenient in this bay for the sake of such of our shipping as are many times drove in here by stress of weather, and through the defects and decay of this port, are too commonly either stranded

(*f*) Leland's Itinerary, vol. v. fol. 74. Camdeni Britannia, p. 510. Speed's British Empire, fol. 101. Mr. Edward Lhwyd's Annotations on the English Translation of Camden. Morris's Observations on the Harbours in Wales, p. 16. —(*g*) Leland's Itinerary, vol. v. fol. 79, 80. Harrison's Description of Britain, p. 79. Drayton's Polyolbion, song 6. Enderbie's History of Wales, p. 216. Baxteri Glossarium Antiquitatum Britannicarum, p. 220. Crouch's Complete View of the British Customs, p. 384.

or lost. Aberystwyth bar is often choaked up, so that the smallest vessel cannot either pass or repass; and all the vessels in the harbour are obliged to lie there till a land-flood from the rivers Rheidiol and Ystwith set them at liberty. A pier head of timber carried into the sea on the west side of the river, would probably keep it within its bounds. But if a passage was cut for the river Rheidiol through the beach, under, or near the castle, where it seems to have been in ancient times, it would make here a very convenient harbour; but this must be also defended by a wooden pier on the west side of the entrance. At the Weege, or, as the true British name is, Wig, on the north side of the town, a pier of stones might be run out on the ridge of rocks there, and a good harbour made, at the expence of about four thousand pounds. The river Rheidiol may be brought there with very small charge, to fill a basin for back water (*h*).

THE herring fishery here is in most years so exceedingly abundant, that a thousand barrels have been taken in one night; and it is computed that they send, even to the middle counties of England, a quantity of herrings fresh, equal to what they cure. Their fishing begins in September, or a little earlier, and lasts three or four months. During this season they have such a glut of Cod, Pollack Whiting, common Whiting, Ray, and other fish, that they set but little value upon them. Bottle-noses and Porpoises sometimes run on shore in shoals; and blue Sharks are frequently caught upon the coast; from all which they make considerable quantities of oil. About one hundred small vessels are employed in this fishing trade, as long as the season lasts, the remaining part of the year, either in the coast or in the Irish trade. There are also a few larger vessels that carry lead ore, timber, and bark; all which is nothing in comparison of what could be done, if the port was once rendered, as it might be, safe and commodious (*i*).

THE Dowy divides Cardigan from Merionethshire, becoming thereby the boundary between South and North Wales, and is a river of long course, falling into the Irish sea below Aberdowy, which is a member of Milfordhaven, and though like the rest, from the channel of the river being altered much decayed, and grown far less convenient than it once was, yet is it still, a place of some note in the Irish, fishing and coasting, trade (*k*). But, before we proceed farther, it will be proper to look back a little upon Cardiganshire, in order to observe how probable it is, that if some of these ports were

(*h*) Morris's Observations on the harbours in Wales, p. 10. — (*i*) Speed's British Empire, fol. 101. Mr. Edward Lhwyd's Annotations on the English translation of the Britannia Atlas Maritimus, p. 9, 10. Cutler's Coasting Pilot, p. 17. Morris's Observations on the harbours in Wales, p. 10. — (*k*) Sir John Prife's Description of Wales, p. 16. Harrison's Description of Britain, p. 80. Baxteri Glossarium Antiquitatum Britannicarum, p. 105, 106. Crouch's Complete View of the British Customs, p. 384.

thoroughly repaired, they would soon attract a trade, possibly far greater than could be expected, for it is the same with respect to the improvement of countries as to the raising of private estates, the first steps are always the hardest; and as he who is once worth money may easily become rich, so when a little foreign commerce comes to be added to fishing and the coast trade, the progress is surprisingly quick, and the success amazingly great. We have seen that a prosperous herring fishery might be easily established; we have heard of different kinds of copper ore, and of coal: But the mountains, and even the marshes, of Cardigan, retain in their bowels minerals of still greater value, which, if they had good roads to bring them by, and convenient havens to bring them to, would be certainly wrought, as in times past, with at least as great, if not greater profit.

It has been believed, that both the Romans and the Saxons were acquainted with the mine at Consumblock. In succeeding ages there were attempts to work it made by the patentees from the crown. In Queen Elizabeth's reign, some Germans began fresh researches; and a man of great reputation, and in high favour with her, one Mr. Smith, who, from his taking the customs to farm, has been known to posterity by the name of Customer Smith, wrought these mines with effect; and, at a great expence, sent the silver that was drawn out of them to the Tower of London to be coined. After him came the famous Sir Hugh Middleton, who farmed them from the Society for Royal Mines, for an annual rent of four hundred pounds. He was so fortunate as to make two thousand pounds a month, and acquired here, in a short space, the greatest part of that vast wealth which he buried in the project for bringing the New River to London. Upon his demise Sir Francis Godolphin, and Thomas Bushel, Esq. undertook the working of these mines; and King Charles the First gave them leave to set up a mint at Aberystwyth, where they coined shillings and half crowns marked with the Ostrich feathers, which is the device of the Prince of Wales. After the decease of Sir Francis Godolphin, Mr. Bushel went on, and with such success, that, in return for the great favours conferred upon him by that monarch, who appointed him governor of the Isle of Lundy to secure his shipping; made him a present of the duty arising from the lead of his own mines, and let him the duties upon all other lead mines to farm, to encourage the undertaking, he raised a regiment of horse for his majesty's service, at his own expence, furnished clothing for his whole army, and lent him forty thousand pounds. This gentleman sinking at length in the general ruin, these mines were buried under water, though not in oblivion. The mine adventurers wrought them next, and wrought them to profit as long as they could agree. Since that period, some private adventurers have wrought with smaller

smaller profit, because they had a smaller stock. Yet these are far from being the only mines, or perhaps the richest mines, in this county; though, at some seasons, they have yielded forty-four ounces of fine silver, out of every tun of metal made from this ore. Without question, if a large capital were employed, and the works honestly managed, immense sums might yet be raised from the mines in Cardiganshire; and nothing so likely to bring this to pass, as the speedy and effectual amendment of the ports in the manner which has been recommended (1).

MERIONETH is the first maritime county in North Wales; and though very deficient in ports, has many fine rivers very capable of improvement. To say nothing of the Drauydh and the Dee; the Avon runs through the midst of it, and falls into the sea at Barmouth. The mountains are so high about this small harbour, that no land marks would be of any use in foggy weather; and therefore two buoys are much wanted, to be placed one upon each bar. In all the descriptions we have of this principality, we find the shire of Merioneth represented as the most unpleasant, the most unprofitable, and the most unimproveable. If it be so, it is a good instance of the truth of our general doctrine, that where there are few navigable rivers, or, which with respect to immediate effects is all one, where rivers are neglected and despised, the country must remain uncultivated, and of course the inhabitants poor, and without the necessaries of life; for certainly, if this was not the case, Merionethshire, notwithstanding the sharpness of its air, and the height of its mountains, is very far from being a despicable country. There were formerly several mines wrought with considerable profit; there are indisputable marks of iron, lead and copper mines, well situated, that is, at no great distance from rivers, that were never wrought at all. The country abounds with black cattle and sheep; and those mountains so much contemned, besides their invisible riches, bear great quantities of good timber; which with butter, cheese, and bark, make the principal commodities that are exported from hence. There is indeed a woollen manufacture of white cloth and stockings, which, from their having but one market, was for a long time but of little use to the inhabitants, but by their perseverance is become profitable. On the coast they have some years an advantageous herring fishery; but at all times they have abundance of salmon, cod, pollack, mullet, sand eels, and most kinds of flat fish. Upon the whole, here are all the necessaries of life in the utmost plenty; the materials for a variety of manufactures; labour cheap; the harbour of Barmouth, that might be rendered

(1) Mr. Edward Lhwyd's Additions to the English translation of Camden. Doctor Fuller's Worthies in Wales, p. 3, 4. * Sir John Pettus's Fodinæ Regales, p. 33, 34. Mr. Waller's Maps and accounts of the Mines in Cardiganshire, p. 8. Shier's second Familiar Discourse concerning the Mine-adventure, p. 50.

tolerable;

tolerable; that of Aberdovey, where, by rolling the south bar to bring the river into its old channel, and erecting a pier to run south from Bryn y Celwydd, which would keep the south bar always open, there might be an excellent haven made; and then what would there be wanting to render this country rich and populous? industry and attention only (*m*).

CARNARVONSHIRE, by the natives called Sir Caer ar von, that is, the District of the City over-against Mona, from its chief town, lies next; and that part of it which projects into the sea, and seems to answer the like projecting part of Pembrokeshire, is both fertile and pleasant (*n*). There are, as we before observed, abundance of lakes in this county, which, nevertheless, has many rivers. Pwlhely, commonly called Pullhely, that is, the Salt Pool, lies between the Earch and another small river, where with a third called the Gerck, they all pour their waters into the sea, and thereby make a safe and spacious port; which, however, is rather fitted, than famous, for trade (*o*). The county town is pleasantly situated between two small rivers, of which one is the Sejont, on which stood the ancient Segontium, out of the ruins of which rose Carnarvon, built and fortified by Edward the First; which being thus seated, has a very commodious haven, though impeded by a bar; but the tides rise so high here, that, with proper attention, ships almost of any size may either go in or out in great safety (*p*).

THE passage through the river Menai, which is, strictly speaking, the strait between the continent and the island of Anglesey, is not a little dangerous, from the opposition of rocks and islands, and the narrowness of the channel, which occasion great overfalls, violent currents, and a kind of whirlpools, while the tide of flood or of ebb runs strong. Some have thought that it is not impossible to construct a bridge to join the two counties; but what is more wanting and certainly practicable, at the expence of two or three thousand pounds, is to make a better passage for ships; which would be of infinite service to the trade of Cheshire, Lancashire, Cumberland, Scotland, Ireland, and Wales, as is well known to the inhabitants of these maritime ports. The Conway, in the language of the natives Kenwy, that is, the Great River, which divides this county from that of Denbigh, has scarce its equal.

(*m*) Giraldi Itinerarium Cambriæ, lib. ii. cap. 5. Harrison's Description of Britain, p. 82. Camdeni Britannia, p. 530. Sir John Prife's Description of Wales, p. 9. King's Vale Royal of England, P. i. p. 20. Leigh's Natural History of Lancashire, Cheshire, &c. p. 22. Dr. Childrey's Brit. Baconia, p. 145. — Baxteri Glossarium Antiquitatum Britannicarum, p. 106. Morris's Observations on the Harbours in Wales, p. 9. — (*n*) Giraldi Itinerarium Cambriæ, lib. ii. cap. 6. Leland's Itinerary, vol. v. p. 47, 48. Sir John Prife's Description, p. 9. — (*o*) Camdeni Britannia, p. 534. Cutter's Coasting Pilot, p. 17. Crouch's Complete View of the British Customs, p. 383. — (*p*) Lelandi Genethliacon Eadverdi Principis Cambriæ, p. 26. Itinerary, vol. v. fol. 49. Camdeni Britannia, p. 535. Speed's British Empire, fol. 123. Cutter's Coasting Pilot, p. 17. Crouch's Complete View of the British Customs, p. 383. Morris's Observ. on the Harbours in Wales, p. 6.

For, rising out of a lake where the three shires of Carnarvon, Denbigh, and Merioneth meet, it runs with a north-west course, receiving in the short space of twelve miles more than as many rivers; so that at Aberconwy, where it discharges its waters into the Irish sea, it is a full mile broad, and capable of bringing ships of almost any size up to that pleasant and beautiful town; which, however, has nothing to boast, but that it may be made as fine a place, and as commodious an haven, as any on this side the island (*q*). At present the port is as much spoiled, and is as far decayed as it can be, but yet might be easily recovered by rolling the sand, and piling the entrance of the old bar; but, till this is done, a buoy, on the present bar, which would cost a trifle, is absolutely necessary. Thus, we have often observed, the gifts of nature are permanent, and resist surprizingly even the worst usage. We learn from the Itinerary of Antoninus, that the Romans had a town here called Conovium, as the river was Conovius; but we cannot say that this was precisely the same, for that seems rather to have been where now there is a small village, called Caerhyn, that is, the Old City. Edward the First, who raised Aberconwy out of the ruins of Conovium (though at some distance) surrounded it with a fair stone wall, intending that the grandeur of his new structure should, in some measure, answer to the beauty of its situation. It is true, that a great part of Carnarvonshire is a rugged, and not over fruitful country; but the sea coast is plain, and very pleasant. In respect to the fertility of the whole, something may be collected from the little trade that is left to this port, which, with timber and oak bark, consists chiefly of corn, of which about fifteen hundred quarters are exported annually. There was, some years ago, a pearl fishery here, but as in other places, it was not found to merit attention, though pearl mussels are still plenty. There was also, formerly, a noble copper mine at Llandudno, near this harbour, which now lies under water; but it might, without much difficulty, be recovered with proper engines, until a great level be brought up, for which the place is well situated. Mine-works lying thus on the sea side, are, upon many accounts, much preferable to those in the inland parts of a country, for reasons so very obvious, that they need not be mentioned (*r*).

THE shire of Denbigh contains little to the point we have in view; for, notwithstanding three rivers run through

(*q*) Giraldi Itinerarium Cambriæ, lib. ii. cap. 8. Lelandi Genethliacon Eadverdi Principis Cambriæ, p. 30. Harrison's Description of Britain, p. 81. Camdeni Britannia, p. 535. Enderbie's History of Wales, p. 214. Cutler's Coasting Pilot, p. 17. Crouch's Complete View of the British Customs, p. 383. Baxteri Glossarium Antiquitatum Britannicarum, p. 86, 87. Morris's Observations on the harbours in Wales, p. 1. — (*r*) Lelandi Genethliacon Eadverdi Principis Cambriæ, p. 16. 30. Lambard's Historical and Topographical Dictionary, p. 71. Camdeni Britannia, p. 535. Speed's British Empire, fol. 123. Baxteri Glossarium Antiquitatum Britannicarum, p. 86, 87. Cutler's Coasting Pilot, p. 17. Morris's Observations on the Harbours in Wales, p. 2.

the bounds of this county into the sea, yet they procure not so much as one port; and though the clear and gentle Clwyd rises in Denbighshire, and bestows its name on one of the finest valleys in Europe, and the Elwy has its source in this shire likewise, yet they both pass on to the next county; and the Dee too only crosses it in its passage, and continues its course; so that, though this be in general estimation a maritime county, it cannot boast so much as of a single haven; and yet some parts of it are very fertile, and others are exceedingly pleasant (*f*).

FLINTSHIRE is nearly in the same condition. The Clwyd passing by St. Asaph, and having received many lesser streams, rolls into the Irish sea, without making any port. Flint has indeed the benefit of a little river, which falls there into the Firth, or Estuary of the Dee, and from thence an haven, but of no consequence; so that the trade of this county, which from its coal and lead mines, both very rich, and some manufactures in Wrexham, esteemed to be the largest town in North Wales, must be by no means despicable, is carried on by the Dee, which is the east boundary of this shire, and so centers in Chester (*t*).

THE design of this succinct survey of the rivers and havens of Wales, is to shew its natural capacity for a much greater domestic trade, and, beyond all comparison, a larger proportion of foreign commerce, than the inhabitants of this valuable country at present possess, or, in the vulgar apprehension, are ever likely to possess. The objections that are commonly raised from the ruggedness of the soil, the sharpness of the air, and the want of a variety of advantages which other parts of the British islands enjoy, are very trivial and inconclusive, when compared with the many, and those too very valuable benefits that may be drawn from these natural privileges, if they were once maturely considered, and, in consequence of that, thoroughly understood. For if there be such things as first principles in policy, it is simply impossible that, in a country where there are half a million of people, under a free government, and above ten acres of land to every head, with two hundred and thirty rivers and rivulets, and many good ports, they should be otherwise than easy, opulent, and in full possession of all the conveniences of life, except through some mistakes in their own conduct.

THESE mistakes being attended with effects so very conspicuous, as the present condition of the common people in Wales cannot lie mighty deep, so as to escape the penetration of any person who has been accustomed to think on these subjects at all, holds it his duty to think on them attentively, and will

(*f*) Lelandi Genethliacon Eadverdi Principis Cambriæ, p. 37. Harrison's Description of Britain, p. 81. Camdeni Britannia, p. 546. Enderbie's History of Wales, p. 214. Speed's British Empire, fol. 119. Annotations on, and Additions to Camden.—(*t*) Sir John Price's Description of Wales, p. 10, 11. Camdeni Britannia, p. 552. Speed's British Empire, fol. 121. Doctor Childrey's Britannia Baconica, p. 153.

allow himself to think with freedom. It seems to be no judicious œconomy here, or indeed any-where else, for the people of the country to live hardly, and to fare poorly, that they may raise provisions of different kinds for exportation; for countries as well as lands, are best improved by spending upon them their own produce. That this is not bare reasoning, or a probable conjecture only, will appear from hence, that multitudes of the meaner sort of people, disliking the hardships they suffer, leave their country, in order to live better, by their labour and industry, elsewhere. It is therefore self-evident, that if proper employment were found at home to enable them to purchase, they would willingly remain, and consume a great part of those provisions that are now exported. This would answer much better, that is, would produce a larger profit than can be produced by thus exporting them. It is true, there are already several manufactures in Wales, but there might be many more. Those manufactures, more especially of late years, increase, but they increase very slowly; and the reason of this is also evident; they have not markets enough for those manufactures, which consequently do not fetch the price they ought; most of those markets are not in this principality, and consequently the Welch have the labour, and strangers have the profit. It has been long ago observed, even by a writer (*u*) of their own nation, that the inhabitants of this country, from false notions of gentility, are little inclined to breed their children to manual, which they account from thence to be servile occupations; but chuse rather to give them a slender education, and, as their phrase is, to send them abroad to seek their fortune. Now what is this, but to send them to be servants in other places, to people who are wiser, in this respect, than themselves, and suffering them, through a false pride, to become the instruments of procuring plenty to other countries, which, with an equal, perhaps with a less degree of toil, they might procure at home? It is also said, and perhaps not without some degree of truth, that though the most hospitable nation upon earth to strangers, yet they do not love to see them settle and thrive amongst them; from a narrow, and at the same time a false notion, that whatever wealth is acquired amongst, must be taken from them; whereas a stranger's prosperity can never happen, but with great advantage to themselves. If therefore these evil thoughts were corrected, and their thoughts in general rectified, enlarged, and turned to the cultivation and improvement of their native soil it would quickly repay all their pains. I am very sensible, that in suggesting these hints, I have undertaken a very invidious office. But to what end? The rendering service to a generous, honest, well-meaning people, who have been so long, and so very much hurt, by little prejudices, that it is high time they were removed. It is very possible, I may not make my court to them by these observa-

(*u*) *Commentarioli Britannicæ Descriptionis Fragmentum.* Auctore Humfredo Lhuyd, Denbyghienſe, Cambro Britanno. Colon. Agrip. 1572, p. 59.

tions, nor indeed have I this at all in view; for I speak it with great sincerity of heart, I would rather be of real service to one Welch village, than receive the applause of this whole island. Some perhaps may say, that if I had known the country and the people better, I should have been convinced that these are but chimerical notions, plausible in themselves, but not, at least not here, reducible to practice; that the inhabitants are much better judges than any stranger possibly can be, of the nature of their own soil, and the fittest methods for improving it; and that, after all, large cities, numerous towns, populous villages, navigable rivers, and ports abounding with business and trade, may be easily established in some countries, while at the same time it would be little short of madness to think of raising them in others; and that therefore it is to no purpose to publish visions that can never come to pass, or to waste one's thoughts and time, how honest soever one's intentions may be, in reasoning to no end, and propagating fine-spun notions that will do no good.

BUT to meet common apprehension with its most conclusive answer, matter of fact. This country has been heretofore in much better condition than it is, and therefore it may be so again. It was already gone to decay when visited by Giraldus; sunk lower still when viewed by the industrious Leland; and in a much worse state when Camden passed through it. Yet they all agree in acknowledging the remains of palaces, cities, and fortresses, which had been erected in, and continued monuments of, better times. Caerphilly castle, in Glamorganshire, is now nothing more than a heap of ruins; yet those ruins shew that there was a time when it was not inferior, in any respect, to that of Windsor (*w*). Here are the vestigia of cities, towns, castles, which time has not only devoured, but almost digested. Some of the places, that are still subsisting, are but shadows of what they were. St. David's, which was once the metropolitan see of Wales, and still remains a Bishoprick, has a cathedral half in dust, few houses, and is, though a city, without a market (*x*). Bangor, distinguished formerly by the epithet of great, is in a little, and but a little, better condition (*y*). Llandaff, supposed to be the first place of Christian worship in our isle, is mean, and marketless; and would be still in a worse state, if it was not for a small matter of trade (*z*). Flint has a castle and a haven, with the name of a county town, but no market (*a*). There are the remains

(*w*) *Camdeni Britannia*, p. 496. Annotations on, and Additions to Camden. Baxteri Glossarium Antiquitatum Britannicarum, p. 56. — (*x*) Lambard's Topographical and Historical Dictionary, p. 87. Godwini de Præsulibus Angliæ Commentarius, p. 574, 575. Annotations on, and Additions to Camden. — (*y*) Lelandi Genethliacon Eadverdi Principis Cambriæ, p. 26. *Camdeni Britannia*, p. 535. Speed's British Empire, fol. 123. Annotations on, and Additions to Camden. — (*z*) *Camdeni Britannia*, p. 497. Annotations on, and Additions to Camden. — (*a*) Lambard's Topographical and Historical Dictionary, p. 121. *Camdeni Britannia*, p. 532. Annotations on, and Additions to Camden.

of several ancient roads (*b*), which prove that things were once much better than they now are in this country; and why may they not be so again?

If it be demanded, whence these hopes arise? let it be remembered, that Wales is very happily diversified; for though there may be a vast tract of mountainous and barren country, yet this is every-where interspersed with fruitful and pleasant spots; and in many counties there are large districts of fertile and delightful plains, which, in point of situation, and climate too, are not excelled by any districts in Britain. The produce in all kinds of necessaries is a proof of this, as it makes the greatest part of their exports. Sheep, goats, black cattle, horses, they have in abundance. Fish excellent, and in vast variety; game, and all sorts of tame fowl, in plenty. Neither are they deficient in metals; silver, copper, and lead especially, are drawn from their mountains. But the chief means of changing the face of Wales, and bringing it on a level with the neighbouring counties of England, is to introduce new, and remove obstructions from old manufactures. For this, no quarter of this island, no country in Europe, more fit. In Wales the people are robust, healthy, active, indefatigable, stout, sober, and, in several counties, remarkably long-lived. Provisions are here in abundance; and if there were more markets, would be still more abundant; of consequence, labour would be for a long time cheap. Add to all this, that the two potent instruments, water and fuel, are no-where in greater plenty than here, or better disposed; so that, instead of pointing out what manufacture would, we may justly assert it must be no easy task to fix on any, that, with due attention, and a moderate fund for its support at first, would not succeed.

If it shall still be demanded, when this is to be looked for? the answer is ready; when the benefits arising from industry are thoroughly understood by the better sort, and consequently generously encouraged, and prudently directed among the meaner. This will produce a true spirit of improvement. Woods will be planted, mills erected; every brook, every rivulet, will be adapted to some useful purpose; labour will produce wealth, wealth will attract strangers; the lands already cultivated will be let dear, others which have been for ages useless, will be tilled; the hills will be covered with sheep, the rocks receive new colonies of goats; old towns will be rebuilt, new ones founded, and every little creek will gradually become an haven. The present coast trade, the fisheries excepted, will be despised, and places at present scarce known, the fruits of commerce shall, amongst our posterity, set on the same foot with Chester, with Liverpool, and with Bristol.

THAT portion of this island which, since the union, is stiled North Britain, has received from the bountiful hand of Provi-

(*b*) Camdeni Britannia, p. 530. Annotations on, and Additions to Camden.

dence a very copious distribution of waters, and those too very happily disposed for the use and benefit of its inhabitants, inasmuch that it may be with truth affirmed, there is scarce any part, at least any considerable part, so situated, as not to have its share of these blessings (*c*). Springs of clear and wholesome water are every-where in plenty, not only on the sides, but even on the tops, of many of the mountains, and sometimes also of bare rocks, as in the island of Bass, in the Firth of Forth (*d*). These springs in their descent swell into pleasant rills, and by degrees into brooks, or, as they are stiled in that country, burns, which straying every-where through the fields, either are, or might be, easily rendered instruments of fertility (*e*). These again, in their progress, augmenting their streams, become at length no contemptible rivers, which administer to all the purposes of domestic œconomy, and, exclusive of the pleasure and profit arising from their fisheries, are very capable of being turned, as in some places they are, to purposes of industry; so that they conduce here, as in other countries, according to their respective sizes, to invite people to settle upon their banks, and are at once the ornament and support of private houses, villages, and towns. But with regard to navigable rivers, such as we have described and applauded in the southern part of this island, there are but very few; and therefore it is no mighty wonder that the faces of the two countries should vary so much, or, if I may so speak, that the wages of industry being so much higher, she should from thence have so many more servants in the one than in the other (*f*).

It may not, perhaps, be very easy to account for this difference in a satisfactory manner; but as, no doubt, this will be expected by some of our readers, we shall endeavour it to the utmost of our power, and leave what is defective to be supplied by the strength of their own judgments, or from their obtaining better informations, to which even these hints of ours may lead them (*g*). We have before remarked, that the midland counties in England, though not mountainous, are notwithstanding so elevated, as to give a constant easy current to their rivers, which, on the east side of the island especially, have, the extent of this island considered, a very long course (*h*), which is attended with many advantages, and particularly that of receiving many subsidiary streams in their passage, which at length augment them to a size suitable to the purpose of inland

(*c*) Hætoris Boethii Scotorum Regni Descriptio, fol. 3, 4, 5. Speed's British Empire, fol. 111. Drayton's Polyolbion, song 30.—(*d*) Sibbaldi Prodrom. Naturalis Historiæ Scotiæ, P. i. lib. i. cap. 9. Camdeni Britannia, p. 688. A true Description and Division of the whole country of Scotland, of the Situation, Distance, and Commodities, in every part thereof, 4to. without pages, and without date.—(*e*) Scotiæ Descriptio per Paulum Jovium. Sibbaldi Prodrom. Naturalis Historiæ Scotiæ, P. i. lib. i. cap. 9. Buchanani Rerum Scotticarum Historia, lib. i.—(*f*) See the Treatises written upon the Circumstances and Trade of the two Nations, about the Time of the Union.—(*g*) An attention to the situation and natural history of any country, is a necessary introduction to the knowledge of its political interests.—(*h*) Political Survey of Great Britain, vol. i. p. 136.

navigation. In North Britain, that is to say, through the greatest part of the country, there are elevations of quite another kind; the depth of the vallies corresponding to the height of the mountains; whence, the different form and texture also of those mountains considered, arise the different natures of their rivers (*i*). Many of these, as we have already observed, meeting with hollow places in their passage, expand themselves into loughs, till, finding a proper channel, they resume their form of rivers, and as the nature of the soil directs, sometimes expand themselves again and again, or continue their progress in the same form to the sea (*k*). Some having a direct, though not a very short course, roll on with the rapidity of torrents; some are impeded in their passage by rocks, and cataracts by their falls; some force large stones and sand along with them by the strength of their current; and others hasten to the ocean with a velocity that renders them unfit for navigation (*l*). It is very probable that, in several of these instances, methods might be found to remove such inconveniences; and to qualify them, would not, perhaps, be difficult in many more; but these are not to be expected for the present; the country must be first improved, the people persuaded to live at home, and, when industry has furnished wealth, attention to such matters will arise of course; and various things may be attempted then, and performed too, which at this juncture it would be thought little less than madness to mention.

BUT, notwithstanding this, we must take the liberty of observing, that if from hence it should be understood, that inland navigation is a thing utterly impossible in North Britain, the conclusion would be too hasty; as the surmise, that, from its having so few navigable rivers, it must be utterly unfit for foreign commerce, would be void of all foundation (*m*). Nature, that is, Divine Wisdom, arrives at the same end by very different means; and, where men are not wanting to themselves, seldom puts it out of their power to procure all the conveniencies that can render life happy, provided they are sought with diligence, and prosecuted with perseverance (*n*). We have shewn, in a former chapter, from one remarkable instance, that by a judicious management of their loughs, a communication might be easily established between the German and Atlantic Oceans, through the county of Inverness (*o*). and it will very speedily appear, that this is full as practicable in the South; and perhaps it would not be difficult to point out other communications of less extent, that might be still more

(*i*) Hæstoris Boethii Scotorum Regni Descriptio, fol. 3, 4. Sibbaldi Prodrum. Naturalis Historiæ Scotiæ, P. i. lib. i. cap. 9. A true description and division of the whole country of Scotland, &c.—(*k*) Political Survey of Great Britain, vol. i. p. 115.—(*l*) Luyt's Introduct. ad Geograph. §. ii. cap. 23. p. 242.—(*m*) Sir William Monson's Naval Tracts, book iv.—(*n*) Cic. de Officiis, lib. i. cap. 42. Aanwysing der Heillame, Politique Gronden, P. i. cap. 14, 15. Sir William Temple's Observations on the United Provinces of the Netherlands, chap. vi. (*o*) Political Survey of Great Britain, vol. i. p. 116.

easy. But, till these are accomplished, very great advantage, from commerce may be obtained from the immediate bounty of nature, which, though sparing in navigable rivers, has abundantly supplied that defect, with regard to this point, by many large firths, or estuaries, as the ancients called them (*p*), which abound with ports, which either are, or with little difficulty might be made, very commodious, and which are so disposed, that, if the whole country was once thoroughly peopled and cultivated, they would easily find the means of sending their commodities and manufactures abroad, and receiving returns from other parts of the world; which will be conceived without difficulty, when it is asserted, that in very few parts of Scotland the inhabitants are thirty miles from the sea (*q*); so that they can no-where be without trade merely from the defect of situation; a circumstance that takes from indolence every excuse, and renders poverty criminal, either in the people themselves, or in those that govern them (*r*). These points premised, we will now proceed to the history of the navigable rivers they have, and the advantages that are, or may be, drawn from them.

THE Forth is one of the most noble and commodious rivers in Scotland; and would indeed merit that appellation in any country. It takes its rise near the bottom of Leimon Hill, and running from west to east, receives in its passage many considerable streams, deriving their waters from the eminences in the midland counties of North Britain (*s*). The ancient and famous town of Stirling, once the boundary of the Roman conquests, stands upon the Forth, which is overlooked by its castle; and here is a fine stone bridge of four arches, to which vessels of tolerable burthen may come up with the tide; which flows, and the river is navigable only for a few miles above it (*t*). From Stirling, the Forth winds in a most beautiful and surprizing manner to Alloa, or Alloway; so that, though it be but four miles by land, it is twenty-four by water, between these two places. Below Alloway it expands itself to a great breadth, between the rich counties of Lothian and Fife, till, at Queen's Ferry, it is contracted by promontories shooting into it from both coasts.

(*p*) Strabonis Geographia, lib. iii. p. 140. Varenii Geographia generalis, lib. iv. cap. 12. Baxteri Glossarium Antiquitatum Britannicarum, p. 235—(*q*) R. Sibbaldi Prodrumi Naturalis Historiæ Scotiæ, lib. i. cap. 7. Richardson's State of Europe, book iv. Heylin's Cosmography, p. 268.—(*r*) Robert's Merchants Map of Commerce, p. 285, 286. An account current between Scotland and England balanced; together with an Essay of a scheme of the product of Scotland, and a few remarks on each; as also a view of the produce of the several ports or nations we trade to, by comparing and holding forth how our products and manufactures may balance theirs with returns; by John Spruel, Edinburgh, 1765. The interest of Scotland considered, London 1736, 8vo.—(*s*) Hectoris Bæthiæ Scotorum Regni Descriptio. Buchanani, Rerum Scoticarum Historia, lib. i. Sibbaldi Prodrum. Naturalis Historiæ, P. i. lib. i. cap. 9.—(*t*) A true description and division of Scotland. Camdeni Britannia, p. 688. Atlas Maritimus et Commercialis, p. 6.

so that, from being four or five, there it is not above two miles broad (*u*). In the midst of the channel lies a small island, called Inchgary, which has a spring of fresh water; and upon it there was anciently a fort; and if that was thoroughly repaired, or a new one erected, and there were either forts or block-houses on the opposite promontories, that part of the river, which lies between Alloway and Queen's Ferry, would be as secure and convenient an haven, for any number of ships, as could be desired. Below Queen's Ferry, the north and south shores receding, the body of water gradually enlarges till it becomes two or three leagues broad, affording several safe harbours on both sides, and excellent roads throughout, unembarrassed with latent rocks, shoals, or sands, and allowing secure anchorage to the largest ships within a league of the coast, in almost any part of the firth; and, to vessels of a smaller size, within a mile, or less (*w*). The populous and plentiful countries on each side of the Forth, furnish various commodities and manufactures; corn, coal, and lead, may be reckoned among the former; shalloons, and woollen stuffs, thread, linen, and salt, among the latter; to which we may add fish, which is a very profitable article (*x*).

ALLOA, or Alloway, may, with propriety enough, be regarded as the port of the Forth, and though not very large, is a well-built, pleasant, and thriving town. There is a very handsome street that leads down to the haven, which is very safe and convenient for ships of any size. Here are warehouses of all sorts of commodities, with two rope-walks, saw-mills for splitting fir timber, with magazines of hemp, tar, deal, and other naval stores (*y*). The merchants of Glasgow have always had their eyes upon this place, as lying very commodiously for augmenting their commerce; of which we shall say more when we come to treat of that, which is unquestionably the most flourishing sea port in this part of the island; and where, as the merchants have larger fortunes, they are able, as well as inclined, to strike out into great schemes, at least for this country, where the principal impediment to their commerce is the want of sufficient funds, and the practice of withdrawing these, and vesting them in land, instead of continuing them in trade, as soon as they grow any thing considerable (*z*).

(*u*) Sibbaldi Prodrum. Naturalis Historiæ Scotiæ, P. i. lib. 1. cap. 9. Johnston's Epigram preserved in Camden. Additions to the English Translation of the Britannia.—(*w*) Cutler's Coasting Pilot, p. 8.—(*x*) A true description and division of Scotland. Atlas Maritimus et Commercialis, p. 6. Additions to the English Translation of the Britannia.—(*y*) Cutler's Coasting Pilot, p. 8. Stat. xxvii. Geo. II. cap. 35. §. 1.—(*z*) Lindsey's Interest of Scotland considered, p. 115.

LEITH, or rather the two towns of North and South Leith, which derive their name from the river that separates them, stand on the south side of the firth of Forth, and may be looked upon as the port to the city of Edinburgh, from which they are distant about a mile, with an admirable causeway for foot passengers, and a very commodious road in all weathers between them (*a*). These towns of North and South Leith are joined by a very handsome stone bridge, of a single arch, over the river, which forms the harbour. Here is also a stone quay for the landing of goods; and a stone pier, which is carried a great way out into the sea, which defends the harbour, notwithstanding the flatness of the shore, from being filled up with sand, as by north-east winds it would but for this precaution; and there are break-waters also on the other side. There has been within these few years much money expended in the improvement of this port, and still greater improvements are under consideration, which shews that their trade is encreased, and still encreasing (*b*). The merchants of Edinburgh have very capacious warehouses, and whatever else is requisite to accommodate either their trade or shipping, in these towns, much enlarged of late; and the legislature also have afforded them what assistance they have applied for to parliament, towards accomplishing whatever should be found expedient for augmenting, deepening, or securing the harbour, or might contribute to its safety and convenience (*c*). The firth is here somewhat more than two leagues broad; and at the mouth of the harbour there is a road, where the greatest ships may ride with security.

THE firth, or, as we find it sometimes written, the frith of Forth, is at the mouth of it, from North Berwick to Fifeness, full five leagues broad, having the little island of May, on which there is a lighthouse, and there might be a fort, in the midst of it; and to the west of this the rocky island of Bass, notwithstanding which, the largest fleet may enter and sail up it many miles with the utmost facility, and in the greatest safety (*d*). From its mouth to Stirling Bridge it is twenty leagues in extent. It was known to the ancients by the name of Bodotria (*e*), or, as Ptolemy calls it, Boderia, and has been ever famous for the number of its havens, some of which indeed are, in their present condition, scarce worthy of that name; but, however, most of them are very capable of being put in a much better state than that into which they are fallen, whenever the commerce of this country shall require it (*f*). In our

(*a*) Camdeni Britannia, p. 690. A short Account of Scotland, p. 89. Cutler's Coasting Pilot, p. 8.—(*b*) Brome's Travels through England, Scotland, and Wales, p. 213, 214. Additions to Camden's Britannia. Atlas Maritimus et Commercialis, p. 6.—(*c*) Cutler's Coasting Pilot, p. 8. Maitland's history of Edinburgh, book viii. p. 500. Stat. xxvii. Geo. II. cap. 8. §. 1.—(*d*) Short Account of Scotland, p. 21. Atlas Maritimus et Commercialis, p. 6.—(*e*) Tacit. in vita Julii Agricola. Camdeni Britannia, p. 688. Baxteri Glossarium Antiquitatum Britannicarum, p. 42.—(*f*) Additions to Camden's Britannia. Atlas Maritimus et Commercialis, p. 8. Cutler's Coasting Pilot, p. 6.

custom-house accounts they reckon three ports on the south side. The first of these is Borrowstonness, of which Alloa is a member, and to which there belong besides sixteen creeks; as Preston Pans has five (*g*). On the north side there is the port of Kircaldie, which is a pretty well-built town, about a mile in length, and by the assistance of an act of parliament, its port is now in a pretty good condition, with a port for building and repairing ships, collieries, salt works, and a linen manufactory in its neighbourhood (*h*). To this the Anstruthers east and west are members; and there belong to it besides, fifteen creeks within the limits of the firth. These are some in a better, some in a worse condition, but, as we have before remarked, are all very susceptible of improvements; and of course this must fully shew how exceedingly commodious the firth is for foreign commerce. We have, in speaking of the ports of Lynn and Hull, so very fully explained the numerous advantages that necessarily attend success in foreign trade (*i*), that the reader will easily conceive what mighty benefits may be drawn from between thirty and forty creeks and havens, that lie within this firth, and at the same time, even the most remote of them, within the compass of about thirty English miles one of the other.

In treating of those ports, we mentioned the original of their commerce to have been their dealing in Iceland cod; it is therefore fit we should observe here, that the inhabitants on both sides this firth, exclusive of many other valuable branches of the fishing trade, and especially of oysters, not inferior perhaps to any, have an advantage equivalent to this at their very doors (*k*). The herring fishery in the Forth lasts annually about two months; and is, or might be, of very great service. They commonly employ about eight hundred boats, and in them between five and six thousand men and boys at least. It is computed that about forty thousand barrels of herrings are caught and cured in a season (*l*); these, though lean, are very firm, sound fish; came formerly to a very good market in Sweden, and are still sold with considerable profit in the Canaries, the Western Islands, and in several parts of America. About one sixth of these herrings may be spent at home; and the value of what is exported is modestly computed at forty thousand pounds. The manner in which this fishery is carried on, renders it exceedingly beneficial to the country. The boats belong partly to the fishermen, who employ the rest of the year in catching of white fish; but the greatest part are commonly

(*g*) Ports of North Britain, with their Members and Creeks, Edinb. 1714, 8vo. Crouch's Book of Rates, p. 385, 386, 387.—(*h*) Additions to Camden's Britannia. Crouch's Book of Rates, p. 387. Stat. xv. Geo. II. cap. 8.—(*i*) Political Survey of Great Britain, vol. i. p. 165.—(*k*) Spruell's Account current between England and Scotland, p. 20, 21. Atlas Maritimus et Commerc. p. 9, 10. (*l*) The Interest of Scotland considered, p. 195. Stat. xiii. Geo. I. cap. 30. §. 1.

the property of ship-carpenters, and other persons, on shore (*m*), who build and equip them in the way of adventurers; and the history of this fishery being very curious and entertaining, as well as pertinent to our purpose, the reader cannot but be pleased that we enter into it.

AN adventure of this kind is called a Drave; and is thus managed. Two or three fishermen associate five or six landmen (*n*); for there are commonly eight or nine men to a boat. Each fisherman has a net of his own; the rest are taken up of the netmakers, who by these means enter likewise into the adventure. A person is appointed in the nature of a purser (*o*), who lays in provision, and other necessaries, and receives the money for which the herrings are sold. When the season is over, the account is made up; and all the expences being first discharged, what remains is divided into eight or nine shares, or, as they call them, deals. The proprietor of the boat draws one deal; every fisherman half a deal; every net half a deal; every landman, who has never been in the trade before, a quarter deal (*p*). Thus all parties are interested in profit and loss; and by this fishery it is plain, that several thousand good seamen are made every year, who work the other ten months as labourers, farmers' servants, or artificers (*q*). It is besides a fund of business for ship-carpenters, coopers, spinners of twine, netmakers, and other mechanics, for the better part of the year. It is to be regretted that a fishery so useful to the country, should be under any discouragements; and yet some there are. In ancient times there was a certain quantity of herrings taken for the king's kitchen; and, as such impositions never wear out, this has been converted into a tax of ten shillings upon every sizeable boat, that is, every boat that takes three thousand herrings; which duty being long since granted away by the crown, is become a tax upon the industrious for the support of the idle (*r*). When this fishing is profitable, the poor people pay it chearfully enough; but when, as it too often happens, this proves not to be the case, they complain bitterly, and it puts them out of humour with the business (*s*). There is a duty likewise to be paid to the high admiral's deputy, who presides

(*m*) This is exactly on the plan of the old Dutch fishery, and is at once the most frugal, the most successful, and the best calculated for the public benefit. —(*n*) By engaging in these adventures, and going through all parts of the herring fishery, steering and rowing the boat from place to place, night and day, and in all winds and weathers, these landmen, in three or four years, become active and able seamen, and are so esteemed on board men of war. —(*o*) In a pretty good year, the provisions, and other necessaries, may amount to about a third of the produce of the herrings, and very seldom to less. —(*p*) Such a landman, whatever his age may be, is stiled a boy, in the same sense that we use the word youngster. —(*q*) Over all this coast, when servants hire themselves to places, they commonly bargain to have the drave-free. —(*r*) This is one, among many instances, of our old constitution (utterly unfavourable to industry) not being so thoroughly rooted out as we imagine. —(*s*) The grantee of the crown is in the case of a partner, who, without contributing either labour or money, is always entitled to profit, even where those who contribute both are subject to loss.

over this fishery; which, as it was long ago observed, ought to be taken away, and the efforts of these poor, but active and industrious men, always precarious in their nature, left as free as possible. How far a late law, for encouraging this coast fishing, has operated in these particulars, we cannot say (*t*); but if either of them remain, one would wish it was removed. In former times the people of Fife carried on a more extensive, and, by very far, a more lucrative fishery, which we shall have occasion to mention in another place; but in the civil wars they received so heavy a blow, that this business, which was the great support of the coast towns, has been discontinued ever since (*u*).

THE river Tay, called by the Romans Tавus, or Taus, is indisputably the largest in North Britain. It rises in Braidalbin, on the frontiers of Lorn; and having in the passage of a few miles augmented its stream, by the accession of several small rills, spreads itself into a little lake, called Loch Dochart; out of which having run but a little space, it expands itself again. Leaving this second lake, it rolls some miles with a considerable body of water, and then diffuses itself abroad in the spacious Loch Tay; which reckoning from the sources of the river, is twenty-four miles in length (*x*), though, strictly speaking, the lake is but thirteen; almost as soon as it issues from hence, it receives the river Lion, coming out of Loch Lion, and running through Glen Lion; which having travelled in a manner parallel to it, from its source, for the space of twenty-five miles, at length joins the Tay as it enters Athol, which it next traverses, and directing its course in a manner due east, receives almost all the waters of that country. Bending then to the south, at the distance of six miles, it reaches Dunkel (*y*), which, in the language of our ancestors, signifies the Hill of Hazels, was the very centre of the old Caledonia, and is at present esteemed the heart of the Highlands. The river is very broad here, insomuch that there is a ferry over it at each end of the town. Dunkel was formerly a bishop's see; is pleasantly situated; and his grace the duke of Athol has a palace here, and gardens, enriched with every thing that art, supported by expence, conducted by correct judgment, and directed by true taste, can bestow (*z*). Declining still to the south-east, with a winding course, for above twelve miles, the Tay receives a large supply of waters from the county of Angus; and then

(*t*) Stat. xxix. Geo. II. entitled, "An act for encouraging the fisheries in that part of Great Britain called Scotland." — (*u*) Martin's Description of the Western Islands of Scotland, p. 356, 357. Memoirs of Henry Guthry, late bishop of Dunkel, in Scotland; wherein the conspiracies and rebellion against King Charles I. of blessed memory, to the time of the murder of that monarch, are briefly and faithfully related, p. 170. The Interest of Scotland considered, p. 184, 185. — (*w*) Tacit. in vit. Julii Agricolaë. Camdeni Britannia, p. 708. Baxteri Glossarium Antiquitatum Britannicarum, p. 225. — (*x*) Buchanani Rerum Scotticarum Historia, lib. i. Camdeni Britannia, p. 708. A true Description of the Country of Scotland. — (*y*) Hectoris Boethii Scotorum Regni Descriptio. Buchanani Rerum Scotticarum Historia, lib. i. Camdeni Britannia, p. 708. — (*z*) Additions to the English Translation of Camden's Britannia.

running south-west for eight miles more, is joined in that space by several rivers, the most considerable of which is the Almond. Turning then to the south-east, at the distance of about three miles (*a*), this copious river comes with a swelling stream to Perth, or St. Johnston's, which is the capital of the shire of that name, and a very pleasant, plentiful, and thriving place.

THE Romans, as we learn from the most authentic authorities, were long in this part of the country, and have no where left more visible marks of their manner of maintaining conquests, or of making war (*b*). The camp, or, as some rather incline to call it, castle, at Ardoch, is one of the most perfect in this island; and the military way, that runs eastward from the castle of Duplin to the water of Erne, is still very strong and found for several miles, and broad enough for two coaches to pass, one by the other, with ease (*c*). There was, as our historians inform us, an ancient city called Berth, which was ruined by an inundation of the Tay in the beginning of the thirteenth century, at some distance from the place where St. Johnston's is now seated (*d*). This, which probably derives its name from that, is a royal burgh, or as it is stiled in South Britain a corporation, which Camden calls in Latin, *Urbecula*, applied with great propriety to this place; which, though at the foot of the mountains, and surrounded by them at a distance, is very finely situated, with verdant plains on each side, which serve extremely well for bleach fields; and are highly useful to the linen manufacture, which is the chief support of Perth (*e*). Hither in the winter, for business partly, and partly for pleasure, many of the nobility and gentry from the Highlands resort, and purchase whatever English, and other goods and manufactures, they have occasion for; and there is likewise a great intercourse by land from the southern parts of the country; to facilitate which, tolls have been granted for repairing and improving the road from Stirling hither, by a late act of parliament (*f*). In respect to its foreign commerce, it is accounted a port, and has four creeks dependent on it. The high country behind it affords plentiful pasture to sheep and black cattle; and the Lowlands produce abundance of corn. When the fir woods,

(*a*) These distances are very carefully taken from a Map of the King's Road, made by the late General Wade, from Stirling to Inverness, with the counties adjacent. — (*b*) Corn. Tacitus in vita Agricola. Camdeni Britannia, p. 797, 798. Ricardi Viti, Historiarum Britanniae. lib. iv. p. 318. — (*c*) Buchananii Rerum Scotticarum Historia, lib. iv. Sir Robert Sibbald's Dissertation on the Thule of the ancients in the English Edition of Camden's Britannia, col. 1096, 1101. Itinerarium Septentrionale, or a Journey through most of the Counties of Scotland, and thence in the North of England, by Alexander Gordon, A. M. London, 1736, Fol. P. chap. iv. p. 41. — (*d*) Hectoris Boethii Scotorum Historiae, lib. xiii. Buchananii Rerum Scotticarum Historia, lib. vii. Camdeni Britannia, p. 708. — (*e*) A true Description of the Country of Scotland. Short Account of Scotland, p. 89, 90. Additions to the English Translation of the Britannia. — (*f*) Stat. xxvi. Geo. II. cap. 91. which

which are very regularly planted about Dunkel, come to be felled, and the other improvements that have been made of late years, under the auspice of a noble peer, who is less distinguished by his titles than his patriotism, shall also be made known by their effects, the exports from Perth will be more considerable (*g*). At present the inhabitants drive a good deal of domestic trade; and their commerce is chiefly to Norway and the Baltic, to which countries they send corn and linen; to other places, besides these, some lead, and great quantities of pickled salmon. The tide flow hither, and ships of tolerable burthen ride in the harbour; but those of a larger size remain at Dundee (*h*). As things stand at present, Perth may be considered not only as a town in good condition, but as one in a rising state, the trade of which will certainly increase in proportion as the country about it improves, of which, in consequence of the people's coming to understand, the only effectual means of engaging them to pursue their own interests, there are very strong and well-founded expectations.

THE Tay continuing still a south-east course, receives a few miles below Perth the river Erne, which issuing from a loch of the same name, traverses the county of Strathern, and passes by Abernethy, once the capital of the Pictish kingdom (*i*); swelled by the waters of this last river, the Tay running next directly east, enlarges itself till it becomes about three miles broad; but contracts again before the town of Dundee; soon after which it opens into the German Ocean (*k*). At the entrance of the firth, there are sands both on the north and on the south side; the former stiled Goa, the latter Aberlay and Drumlan; and before these, in the very mouth of the firth, those which are called the Cross Sands. At Buttonness, which is the northern promontory, there are two light-houses. The space between the North and the South Sands may be near a mile, with about three fathoms water; but being within the firth, it grows deeper; and in the road of Dundee, is full six fathoms (*l*). The firth of Tay is not indeed so large, or so commodious, as that of Forth, but from Buttonness to Perth it is not less than forty miles; and the whole may be, without any great impropriety, stiled a harbour, which has Fife on one side, and the shires of Perth and Angus on the other, very fertile and pleasant countries both (*m*). It

(*g*) Atlas Maritimus et Commercialis, p. 17. Crouch's Book of Rates, p. 338. Cutler's Coasting Pilot, p. 8. — (*h*) Spruel's Account current between England and Scotland. Short Account of Scotland, p. 90. Additions to the English Translation of the Britannia. Gordon's Itinerarium Septentrionale, P. i. cap. iv. p. 34. — Hectoris Boethii Scotorum Historia, lib. x. Buchanani Rerum Scoticarum Historia, lib. v. Camdeni Britannia, p. 705. Gordon's Itinerarium Septentrionale, P. ii. p. 164. — (*k*) A true Description of Scotland. — (*l*) Short Account of Scotland, p. 90. Atlas Maritimus & Commercialis, p. 6. Cutler's Coasting Pilot, p. 8. — (*m*) Additions to the English Translation of Camden's Britannia. Atlas Maritimus et Commercialis, p. 7.

is impossible to say this without reflecting a little upon the situation of Fife, which lies between these firths, and has or rather had, besides those in these two firths, some other, and those not contemptible harbours, immediately upon the sea (*n*). One would be apt to imagine that, from so excellent a situation, this country must have been distinguished by being wonderfully populous, crowded with towns, and these towns abounding with commerce. Anciently it seems it was so (*o*); and if it be not in this condition now, the reasons may, without difficulty, be assigned; it would be well if they were as easily removed. After the accession of King James the Sixth to the throne of England, the court lords extended what they called the power of the crown, but which resting in their hands, was in reality theirs beyond measure; and this was opposed, for purposes merely their own, by others, who, in right of their popularity, exercised also a power more detrimental to the public peace, and not at all more directed to the public good; and thus the true principles of policy were in a manner lost. On the other hand, an unreasonable and ill-timed zeal for forms, produced as unreasonable an aversion to things indifferent in themselves; and thus, while religion was all the cry, the true spirit of the Christian Faith was in a manner extinguished. Party disputes in church and state destroying, as they ever will do, all sense of public spirit, made way for a civil war, which ruined the small remains of past prosperity. After the restoration, an oppressive government in one part of the country, which connived, for its own support, at the establishment of a more oppressive aristocracy in the other, extirpated all seeds of industry, and brought on that general decay in agriculture, manufactures, and commerce, which, however visible, was, till very lately, rather to be lamented, even by the most disinterested patriots, than with any rational hopes of success to be put in any train of being recovered. However distasteful in one light the contemplation of its former greatness may be, it cannot but afford us satisfaction in another; for what has once been, may most certainly be again. The country and the climate, without question, are as good as ever; and though the same thing cannot be said of its ports, yet, with some labour, and a little expence, even these may be made so; after which, if any method can be found to employ in manufactures, and thereby engage the youth to remain at home, there is no doubt that an indefatigable application may quickly restore what a series of unfortunate accidents, succeeded by supine neglect, have brought into so melancholy a condition.

(*n*) The reader will meet with a succinct account of these ports in the succeeding chapter.—(*o*) Joannis Leslæi Regionum et Insularum Scotiæ Descriptio, p. 22, 23. Buchanani Rerum Scotticarum Historia, lib. i. Camdeni Britannia, p. 764; and particularly Johnston's elegant and excellent epigrammatick Description.

THE Allectum or Taiodunum of the ancients, now the town of Dundee, is also a royal burgh, stands at the distance of two leagues within the mouth of the firth, upon which it has a convenient harbour, joined to the town, by a causeway, neatly planted with trees (*p*). This place is very elegantly built, the houses of stone, though not very high, with four large open streets, and a very spacious market place (*q*). The rich countries of Gowry and Merns, which lie behind it, supply great quantities of corn, that are laid up in convenient granaries there, and may be considered as the staple commodity of the place. The inhabitants had formerly a very extensive inland trade, and an advantageous commerce to the North, by which they grew very opulent, and, as the custom of that country is, displayed it alike in their public, and in their private buildings (*r*). Their harbour was well secured, admitted ships of large burthen; and they had very substantial and capacious warehouses to receive their cargoes. All this grandeur, however, served only to bring on it a severe calamity; for in the civil wars, after the fatal defeat of King Charles the Second's forces, the supposed strength, and great extent of the place, induced many to take shelter here, and many more to send their effects hither, which quickly drew the English army before the town; and though Major-General Lumsden made a gallant defence, it was carried by storm September 1, 1651, and all that were in arms put to the sword. The plunder here was prodigious, and the loss the heaviest that the trade of Scotland ever received. There were then in this harbour three-score sail of ships, a circumstance sufficient to demonstrate the truth of what has been said. We need not wonder, therefore, that Dundee is no more what it was. The truth is, that though the inhabitants struggled for a time, and made their utmost efforts to repair this disaster, yet they found their endeavours vain, and their affairs ever after on the decline. So that, even before the Union, their commerce began to decay, and, in consequence of that, their harbour and public works; and this to such a degree, that they were obliged to apply to the legislature for relief, and in the last parliament held in Scotland, obtained a grant of a small excise duty, of one third of an English penny, upon every gallon of ale or beer sold in the town (*t*), for the term of twenty-five years, payable to the provost, magistrates, and town council of the place, who were appointed trustees for paying the public

(*p*) Camdeni Britannia, p. 710. True Description and Division of Scotland. Atlas Maritimus et Commercialis, p. 7. Gordon's Itinerarium Septentrionale, P. i. chap. iv. p. 33. — (*q*) Short Account of Scotland, p. 104, 105. Cutler's Coasting Pilot, p. 8. Additions to the last Edition of the Britannia in English, col. 952. — (*r*) See the description of this place by Johnston (who was born near it) in Camden. See also the article of Dundee, in Doctor Jeremy Collier's Geographical and Historical Dictionary. — (*s*) Sir Philip Warwick's Memoirs, p. 361. History of the Civil Wars, p. 325, 326. Heath's Chronicle, p. 301. — (*t*) This Act was never printed, but the title appears in the third volume of the Scots Acts, p. 782, and the substance recited in the subsequent Acts of the British Parliament.

debts of the town, and for clearing or improving the harbour; and for rebuilding the common hall and gaol; and for maintaining other public works of the town, and paving the streets; and for giving salaries to masters for instructing youth. This duty has been continued to them for the same, and other like purposes of public utility, by two subsequent acts, and has been highly serviceable (*u*).

I HAVE insisted on this the more particularly, and transcribed the very words of the statute, that it may serve to explain what is intended by these grants, which are often mentioned elsewhere, and that I might have an opportunity of observing how much better a method this is of supporting a decayed town, and repairing harbours (*w*), than laying duties upon the ships that come to the port, which is really counter-acting the very design of such grants, as every additional burthen upon trade must contribute rather to lessen than increase it; whereas this very light, and almost insignificant, tax upon the common drink, answers the purpose much more effectually. It is also necessary to remark, that in all these laws there are persons of great distinction appointed as overseers (*x*), and a day fixed for the trustees to make up their annual accounts; so that it is very difficult, if not impossible, that any frauds should be committed, or the ends for which the relief was given frustrated or neglected (*y*).

THE river of Southesk rises amongst the mountains in the north of Angus, called Binchichins; running directly south for many miles, till, near the seat of the Earl of Airly, it makes an angle, and directs its course eastward through the county of Forfar, and, after visiting Brechin, once a bishop's see, where there is a noble stone bridge of two arches over it (*z*), falls at length into the German Ocean a little below Montrose. This is said to have been the Manturum of the Romans, and consequently there was no foundation for Latinizing it, as some of our antiquaries have done, by Mons Roseus, or Mons Rosarum, the Mount of Roses (*a*). The new, it seems, being only a recovery of the ancient British name, Mant er osc, which is no more than the Mouth of the Stream (*b*). The town is tolerably well-built, making one long street parallel to the river, and another shorter one, that crosses it. At the

(*u*) Stat. iv. Geo. II. cap. 2. xx. Geo. II. cap. 17. §. 1. — (*w*) Taxes, even upon the necessities of life, when for necessary uses, prudently imposed, and frugally expended, are never regretted, and, instead of discouraging, promote industry. — (*x*) In these Acts the Earl of Strathmore, and other persons of quality and distinction, who have property in the neighbourhood, are appointed to audit the annual accounts. — (*y*) By such accounts it appears how repairs and improvements are gradually made, and sometimes (as in the present case) the trustees are empowered to borrow on the fund conceded by the act. — (*z*) Camdeni Britannia, p. 711. Gordon's Itinerarium Septentrionale, P. ii. p. 165. Additions to the English translation of the Britannia. (*a*) Joan Lestæi, Regionum et Insularum Scotiæ Descriptio, p. 33. Hectoris Boethii, Scotorum Regni Descriptio, fol. 5, 6. Camdeni Britannia, p. 711. — (*b*) Baxteri Glossarium Antiquitatum Britannicarum, p. 170.

entrance there is a rock on the north, called the Stone, and a sand bank on the south, called the Annot; but the port is tolerably good, when a ship is once in, and will be better when the improvements are made, for which the burghers obtained a grant of the same nature with that before-mentioned to the town of Dundee, which cannot but be favourable to the trade of its inhabitants (*c*).

THE river Dee has its sources on the sides of the mountains, or, as they are stiled in this country, the Braes of Mar. It runs almost a direct east course of fifty miles; is a clear sharp stream, gradually augmented by many brooks and rivulets, and celebrated from all antiquity for breeding great quantities of most excellent salmon (*d*). The river Don rises some miles farther to the north; and declining to the south-east, falls, as well as the Dee, into the German Ocean. Both of these rivers have bridges over them, at no great distance from their fall; that over the Dee consists of seven arches, and is esteemed a work of much magnificence; that upon the Don is only of a single arch, sustained on each side by a rock, and is a most noble and surprizing piece of workmanship (*e*). The salmon fishery has been a constant object of government in this kingdom for upwards of three hundred years; for by a law in the reign of King James the First (*f*), the killing of salmon in forbidden time, is prohibited under a penalty of forty shillings for the first offence; and for the third, the offender was to lose his life, or to ransom it. This forbidden time was from the feast of Assumption to that of St. Andrew; that is, from the fifteenth of August to the thirtieth of November (*g*). By another statute in the same reign, it was provided, that merchants selling of salmon in foreign parts, should bring back its value, one moiety in ready money, and the other in Gascoigne wine (*h*). By a law in the reign of King James the Fifth, the former statutes are directed to be put into strict execution (*i*); and in the reign of King James the Sixth, there is another law for enforcing these penalties, as also for regulating the size of casks, according to the standard kept at Aberdeen (*k*); and by a statute in the reign of Charles the Second (*l*), it is directed that each barrel shall contain ten Stirling gallons; and the better to ascertain this, those barrels were to be marked by the coopers who made, and also by the merchants who exported them, under certain penalties. There are, besides these, several

(*c*) Stat. vi. Geo. I. chap. 7. vii. Geo. II. cap. 5. — (*d*) Hæctoris Boethii, *Scotorum Regni Descriptio*, fol. 5. Harrison's Description of Britain, P. i. p. 88. *Camdeni Britannia*, p. 712. — (*e*) See the article of Aberdeen in Collier's Dictionary. *Atlas Maritimus et Commercialis*, p. 8. Additions to the English Translation of Camden — (*f*) Stat. Jac. I. par. 1. cap. 10. p. 3. — (*g*) Stat. Jac. I. p. 2. c. 35, p. 9. — (*h*) Stat. Jac. I. p. 10. cap. 132. p. 41. This was the usual strain of policy in those times; and the like provision was made sometimes in respect to English wool. — (*i*) Stat. Jac. V. p. 4. c. 16. p. 206. — (*k*) Stat. Jac. VI. p. 8. c. 141. p. 491. — (*l*) Stat. Car. II. p. 1. sess. 1. c. 33. p. 191.

later laws for regulating the manner of taking salmon in rivers; for enforcing the former laws, with new and milder penalties; and for other purposes, that were esteemed likely to promote this fishery; and to support the credit of the salmon caught and cured in Scotland, and sent from thence to foreign parts (*m*).

THE reasons have been already assigned why salmon are supposed to delight in these rivers; but there may be also other causes, with which we are not acquainted, since in North Britain, and in other countries, these fish are found in great abundance in some rivers; while in others, that are very near them, and that differ not in any discernable quality, salmon are never caught at all. They distinguish these fish according to their sizes; the smaller are called grils, which some suppose to be a kind of salmon-trout, and the larger, which pass simply under the name of salmon. In some places the larger, in others the less are esteemed; but in respect to both sorts it is allowed, that their excellency in a great measure depends upon the packing and curing; and therefore nothing can be of so high importance to the promoting and supporting this branch of commerce, as the putting those laws, that were so prudently made in reference to this matter, strictly in execution (*n*), which has been the great merit of the magistrates of Aberdeen, and, as will ever happen in such cases, hath established an opinion of superior value, and consequently procured a superior price at foreign markets. So that this fishery, more especially in these rivers, is still of great consequence; and, by a very late law, the inhabitants are allowed to export either pickled or dried salmon, on certain terms, into South Britain, either for home consumption or re-exportation, which cannot fail of proving a strong encouragement to this branch of the North British fishery, and was an indulgence long desired, as well as very much wanted (*o*).

ON the banks of the Don stands the city of Aberdeen, better known by the name of old Aberdeen, so close to the sea side, that some part of it is supposed to have been washed away. It was a bishop's see, the cathedral being dedicated to St. Machar. Towards the close of the fifteenth century the king's college was founded there, and the privileges of a university granted in the most ample terms, though, as a place of public study, it had been a seat of the muses long before (*p*). This cathedral and college are very handsome buildings, and the chief ornaments of the place. At the distance of a mile south stands New Aberdeen, upon the river Dee, the county town, seated on

(*m*) Stat. W. & M. cap. v. p. 335. W. III. cap. xii. p. 492; cap. xviii. p. 510.—(*n*) Deslandes Recueil de different Traitez de Physique, p. 169. Dictionnaire Universelle de Commerce, tom. iii. col. 695, 696. Spruel's Account current between Scotland and England.—(*o*) Stat. xxix. Geo. II.—(*p*) HeStoris Boethii Scotorum Regni Descriptio, fol. 5. Buchanani Rerum Scoticarum Historia, lib. i. Camdeni Britannia, p. 712.

three hills, and stretching itself every way. In the beginning of the sixteenth century the marshal college was (*q*) erected and endowed, has all the privileges of a university; and has received lately considerable additions, as well from the benevolence of its own members, as the well-judged generosity of the town. Here is a very spacious market-place, the houses in general are very well built, and public edifices, particularly two churches, very spacious and beautiful structures (*r*). Few cities are in possession of more, or of greater natural advantages than Aberdeen; the air is pure and wholesome, the climate remarkably mild; excellent water, and, as we have before observed, a medicinal spring. Provisions of all sorts, good in their kind, and very cheap; and the people of the place distinguished for their courteous behaviour (*s*).

THESE circumstances premised, we need not wonder that this is a populous place, or that it should be accounted the third in North Britain, having so many different methods to attract, and not fewer means to preserve and maintain, its inhabitants; as enjoying a great inland trade, and drawing from the adjacent countries commodities and manufactures of very considerable value (*t*). In the shire of Aberdeen there are quarries of spotted marble, and also some of very good slate. Grain of all sorts, and from counties at a considerable distance, are brought thither, as the best market. There are vast plantations of fine fir trees in its neighbourhood, which in time must prove very beneficial, more especially if by any means pot-ashes, pitch, and tar, could be made to advantage (*u*). The salmon fishery is, as we have before observed, of very great consequence. From the close of January, and during the three succeeding months, there are sent to the London market, to the value of two or three thousand pounds. After that time, they are cured in such a manner as to have the reputation of being the best in the world; and the annual export is about one hundred lasts (*w*). Some attempts have been made in the herring and whale fisheries; and, sooner or later, there are good grounds to presume the inhabitants of these places must succeed in both. They likewise export large quantities of pickled pork, which is remarkably sweet and firm, and admirably cured. They make here several kinds of woollen

(*q*) A true Description and Division of Scotland. Additions to the English Translation of the Britannia. Brome's Travels over England, Scotland, and Wales, P. iii. p. 185.—(*r*) Additions to the English Translation of Camden. Atlas Maritimus et Commercialis, p. 8.—(*s*) Sibbaldi Prodrum. Naturalis Historiæ Scotiæ, P. i. lib. i. cap. 9.—(*t*) Atlas Maritimus et Commercialis, p. 8. Beawes's Merchants' Directory, p. 587.—(*u*) The most effectual method, perhaps, for obtaining this, is first to give a bounty for the actual making, and publishing the method of making, pitch, tar, and pot-ashes, at a low price; and then granting a small bounty, for a certain term of years, for such quantities of these manufactures as shall be made and sold at, or below, that price.—(*w*) Dictionnaire Universelle de Commerce, tom. iii. col. 695. Spruel's Account current between Scotland and England. Atlas Maritimus et Commercialis, p. 8.

manufactures, particularly stockings, coarse and fine; which trade was very great before the union, declined afterwards, and is of late years recovered, and that chiefly from their using and manufacturing of their own wool (*y*).—They likewise made plaids, fingsams, and some other coarse goods. The linen manufacture also flourished exceedingly; and there were most excellent Osnaburgs made, so called from their resembling the German linens of that name, till the suspension of the bounty upon the linen manufacture gave a check to that species of industry, which, however, it is hoped will revive. There have been also large quantities of yarn spun here, exported to South Britain, and wrought up at Manchester and other places; which is a strong proof as well of the industry of the people, as of the cheapness of labour; two circumstances that afford us the best grounds to hope, that whatever new improvements may be attempted either in woollen or linen, will have a very fair chance of succeeding in Aberdeen. There is also a manufacture of sail-cloth here, and a considerable trade is likewise driven in the finest sorts of linen. Of late, in consequence of these, and other such-like efforts of industry, they have carried on some trade to the northern plantations, which in process of time may prove very beneficial to the people (*z*).

THE port of Aberdeen, which has a great extent of coast, and not fewer than twenty creeks dependent upon it, is no more than a tide haven, with a bar that sometimes shifts (*a*). But with some expence might be rendered not barely safe, but capacious also, and very commodious. In the year 1695 (*b*), the inhabitants of this place obtained from the parliament of Scotland, not only such an imposition upon ale, as has been before-mentioned, in respect to the town of Dundee, but likewise upon several kinds of goods imported into the said town, and sold there, to pay off the debts of the town, and to make good the losses sustained during the intestine commotions in Scotland after the Revolution; which impositions were to continue for thirteen years. This term was enlarged by an act in 1707 for twenty-five years; and has been further prolonged, by a late statute, for the like time (*c*). But, however useful, however adequate, grants of this sort may be, to the repair or support of decaying burghs, or havens injured by time, yet there are particular cases, and particular seasons too, in which something more ought to be done (*d*). The

(*y*)—Spruel's account current between Scotland and England, chap. 87, 89, 120. Smith's Memoirs of Wool, Edit. 1747, 8vo, vol. ii. chap. 90. p. 68.—

(*z*) Interest of Scotland considered, p. 100. Beawes's Merchants Directory, p. 587. The progress and improvement of the Linen Manufacture of North Britain considered.—(*a*) Atlas Maritimus et Commercialis, p. 8. Crouch's Book of Rates, p. 385. 386. Cutler's Coasting Pilot, p. 8.—(*b*) See the Titles of these Acts, for they are not printed, in the Scots Acts of Parliament, vol. iii. p. 460. 782.—(*c*) Stat. iv. Geo. II. cap. 13. §. 1.—(*d*) The granting a reasonable sum, to a particular place, for purposes assigned, and these too public purposes, can never be thought an improper application of publick money.

situation of Aberdeen at this juncture, is of the utmost consequence to the commerce and manufactures of North Britain; and if a sum was given at once by parliament, for putting the haven into the best condition possible, it might be very prudently laid out, and would produce a very large augmentation of the customs of that port, from the time it was completed. It is already the harbour upon this coast where the most (*e*). considerable business is transacted. But if it was enlarged, rendered safer, and more convenient, there might be much more business done than there is, which would not only be a local benefit to the town and shire of Aberdeen, but to all the counties in the north-east of Scotland; as might be very easily proved if that should ever become necessary, or rather is so apparent, that it stands in no need of laboured arguments to support, or rhetorical flourishes to recommend it.

THE river Devon, or Doern, rises not many miles north from the Don; and running through Strath Bogie in a winding course, declining however constantly to the north-east till it reaches the town of Strathbogie, and then runs for a few miles directly north, turns afterwards due east, at length turns again to the north; and passing many miles on one side of a beautiful country, which from thence derives the name of Strathdevon, bending a little to the west, falls at length into that part of the German Ocean which is stiled Murray Firth (*f*). This pleasant and beautiful river contributes, in the discharge of its waters, to form two little harbours for the town of Bamff, which is a royal burgh, and the chief place in the shire to which it gives name (*g*). It is not either large or rich, but near, and tolerably well-built. What little trade there is, consists in the exportation of corn, and salt salmon. The linen manufacture begins to spread in its neighbourhood; but as its ports can only receive vessels of small burthen, there is not much to be expected from its commerce, though the country adjacent is far from being infertile, and there is plenty of alum-stones, which, with some expence, and, under judicious management, might turn to good account (*h*).

THE river of Spey, which is supposed to be the Tuedis of Ptolemy, is a river of as long course as most in North Britain (*i*). It rises in the mountains of Badenoch, according to the modern division of this kingdom, in the heart of the shire of Inverness. Its waters quickly spread themselves to such an extent, as to become a small lake, called Loch Spey; from

(*e*) If we consider the thing in this light, it would, instead of an eleemosynary grant, be in reality, making a good purchase for the revenue.—(*f*) Hætorii Boethii Scotorum Regni Descriptio, fol. 5. Joannis Leshæi Regionum et Insularum Scotiæ Descriptio, p. 29, 30. Additions to the English Translation of Camden's Britannia.—(*g*) Buchanani Rerum Scoticarum Historia, lib. i. Camdeni Britannia, p. 714.—(*h*) This is a signal instance, that, according to the situation of places, and circumstances of their inhabitants, what is wealth in one country, may be worthless in another.—(*i*) Claudii Ptolomæi Geograph. lib. viii. cap. 2. Hætorii Boethii Scotorum Regni Descriptio, fol. 4. Baxteri Glossarium Antiquitatum Britannicarum, p. 232.

which, resuming the form of a river, it proceeds several miles south-east. Then fetching a compass, it turns north-east, and in that direction runs many miles, till it reaches Ruthven; from whence digressing more to the east, and receiving many rivulets by the way, it rolls on with a rapid stream to Rothes; and from thence directing its course northward, falls into the Firth of Murray, at a place called Garmach, or Garmouth, which is a creek of no great importance, frequented only by small vessels, the ladings of which, consisting chiefly of salted and pickled salmon (*k*), amount annually to about fourscore or a hundred lasts. There are very fine woods on the banks of this river, through the greatest part of its course, the value of which would be very much increased, if the navigation of the Spey could be rendered more practicable than it is; though of late years something of this kind has been done, yet much more, I speak of what may by industry and application be effected, is yet left to do (*l*).

THE Lossy, called by Ptolemy Loxa, rises not many miles above the royal burgh of Elgin, which is the chief town of the shire, distinguished by its name, in the pleasant and plentiful country of Murray, and falls into Murray Firth a few miles below it, at a place called Lossy Mouth, or New Port Elgin (*m*). This burgh, which is still a very handsome town, was anciently a bishop's see; and the fine old cathedral is still visible, though much of it in ruins (*n*). The beauty of its situation, the conveniency of the river, and the abundance of all kinds of provisions in its neighbourhood, has made it the winter resort of the numerous families of gentry round about, which creates a great consumption of the necessaries of life, and is the chief support of the place (*o*). But how slender and sufficient a support this will always prove, when unconnected with other advantages, appears from the application made to the legislature upwards of thirty years ago, setting forth the declining state of the place, the decay of their port, and the mouth of the river filling up with sand; in consequence of which they obtained the usual relief for the term of nineteen years (*q*), which has put things into somewhat better order, and the improvement of the linen manufacture has done, and will do, much more.

(*k*) A true Description and Division of Scotland. Additions to the English Translation of the Britannia. Crouch's Book of Rates, p. 387. — (*l*) Upon the river the old British boats, composed of twigs and leather, and of which Nedham speaks in his epigram on the Spey, are yet in use, and, under the name of Carraghs, managed by the natives with great dexterity. — (*m*) Claudii Ptolemaei Geograph. lib. vii. cap. 2. Hæctoris Boethii Scotorum Regni Descriptio, fol. 5. Baxteri Glossarium Antiquitatum Britannicarum, p. 157. — (*n*) Joannis Leshii Regionum et Insularum Scotiæ Descriptio, p. 29. Buchanani Rerum Scotticarum Historia, lib. i. Camdeni Britannia, p. 714. — (*o*) By joining the manufacture of lace, or any of a like kind, the circumstance of such a resort, as it would certainly secure a consumption, might turn effectually to its maintenance. — (*p*) Additions to the English Translation of the Britannia. Crouch's Book of Rates, p. 387. Stat. viii. Geo. I. cap. 7.

THE river of Findorn rises, as I apprehend, in the hills of Monchrolky, where its waters quickly spread into a lake; passing out of which, and running south-west, they soon form a larger, which is called Loch Moy, wherein is a considerable island, upon which stands Moy Hall, the seat of Mackintosh. The river issuing from thence, takes a wide compass, and passing by Cenbrugh, through which runs the great military road to Inverness, turns gradually to the north-east, becoming the boundary of the two shires into which Murray is divided, viz. Elgin and Nairn (*q*). After receiving many smaller streams, crossing the wood of Tornaway, belonging to the Earl of Murray, and running at a small distance from the ancient town of Forres, declining a little to the north-west, it falls into a basin, which receives likewise a lesser river that runs through Forres, and two other little streams, which make all together, a better harbour than any of the former, though dry when the tide is out, and with a bar at the mouth of the river, which, however, is less apt to shift, and of consequence the harbour is safer than most of the rest. Not far from this bay stood anciently the rich and famous abbey of Kinloss (*r*).

THE town of Nairn is seated on a river of the same name, which falls into Murray Firth. On the banks of this river there are abundance of gentlemen's houses, and a very handsome stone bridge over it, of one arch. The port is capable of receiving only small vessels; and though there are very fine woods in the neighbourhood, yet they turn to less profit than could be wished; and therefore here, if any where in this island, furnaces might with propriety be set up for melting the iron ores, of which there are said to be no inconsiderable quantities within a reasonable distance; and by this means even the lopplings of those woods would be rendered of more value than the woods themselves are, as things now stand (*s*).

ACCORDING to Ptolemy, the Murray Firth was the Estuarium Vararis, and he styles the inhabitants of the country Vacomagi; for to this place the Romans seem to have penetrated, and perhaps somewhat farther (*t*). At the bottom of the Firth, and on the south bank of the river Ness, stands the town of Inverness, sometimes, as ancient writers affirm, the residence of the kings of Scotland (*u*). The great importance of Inverness

(*q*) These descriptions are according to the best maps I could procure, and agreeable to the best lights I could obtain from the persons most acquainted with the country. — (*r*) Hætoris Boethii Scotorum Regni Descriptio, fol. 4. Joannis Lessæi Regionum et Insularum Scotiæ Descriptio, p. 28. Buchanani Rerum Scotticarum Historia, lib. i. Camdeni Britannia, p. 714. Additions to the English Translation of the Britannia. — (*s*) Something of this sort was actually done by the agents of the York-buildings Company, so that there is nothing impracticable in the proposal. — (*t*) Claudii Ptolemæi Geograph. lib. viii. cap. 2. Camdeni Britannia, p. 714. Baxteri Glossarium Antiquitatum Britannicarum, p. 233. He very unaccountably places them in Fife. — (*u*) Hætoris Boethii Scotorum Regni Descriptio, fol. 4, 5. Joannis Lessæi Regionum et Insularum Scotiæ Descriptio, p. 29. Buchanani Rerum Scotticarum Historia, lib. i.

on one side, and of Inverlochy on the other, seems to have been known even in the earliest times, and to have been considered in the same light through succeeding ages (*w*). The river Ness, we have before observed, is about four miles long, with a fair stone bridge over it of seven arches. The town is clean, well seated, tolerably built, with two churches, and is the head of a very large county (*x*). As there are always regular troops in its neighbourhood, there is a great air of politeness, a plentiful market, and more money and business stirring than could be expected in so remote a part of the island. The country in its vicinity is remarkably cultivated, and its produce clearly shews that the soil and climate are not despicable. There is a profitable salmon fishery, which, however, might be improved in many respects. They have also some branches both of the woollen and linen manufacture; and, in consequence of their excellent military roads, a great proportion of inland trade (*y*). But, besides all this, Inverness is a port, with twenty creeks dependant on it, part on the Murray Firth to the east, and part to the north of Inverness, even to the south border of the county of Caithness; yet the foreign correspondence here is far from being extensive. Some merchants indeed there are in the town, and some ships belonging to it, but they are small in size, as well as few in number. The harbour too is none of the best, which induced the inhabitants to apply to the legislature near forty years ago, when they obtained a grant of the nature to often specified, for nineteen years, to commence from the first of June, 1719, which has been by a later law continued for a farther term of twenty-one years, in consequence of which they have made, and are still making, very considerable improvements (*z*). One may reasonably hope, that, in process of time, the commerce of this part of the country will wear an aspect very different from what it does at present, since between Inverness and the Firth the sea makes a spacious bay, ten miles in length, six in its greatest breadth, and about two at its entrance (*a*); which is effectually secured by the new fort of Ardersier, a very large and commodious fortress, to say nothing of Loch Beaulieu, which communicates with that bay on the north-west. Before we leave the Firth of Murray, we will take the liberty of adding a few remarks that possibly may not seem unworthy of the public notice.

THIS differs from other Firths, in that it has, properly speaking, land only on one side, presenting an extent of seventy

(*w*) Walteri Hemingford Chronicon Edwardi Tertii, p. 278. Joannis Fordun Scotichronici Continuatio, p. 1283. Camdeni Britannia, p. 714.

(*x*) Additions to the English Translation of Camden's Britannia. Atlas Maritimus et Commercialis, p. 8.—(*y*) There is no place in North Britain more generally known than this, and consequently no need of multiplying authorities in regard to its present condition.—(*z*) Stat. v. Geo. I. cap. 17; xi. Geo. II. cap. 16.

—(*a*) According to the best maps I could obtain, which were very cautiously compared in order to ascertain these dimensions.

miles at least in a full front to the north. Yet is all this country, more especially where it borders on the ocean, remarkably rich and fruitful, and wonderfully pleasant, as the best writers ancient and modern, acknowledge, and at the same time admit, that the harvests are as abundant, and at least as early, as in the neighbourhood of Edinburgh, though that city lies almost a degree and three quarters more to the south (*b*). This very strongly corroborates what has been advanced in a former chapter in reference to situation (*c*); and what goes still farther, experience shews that the climate alters within the space of a few miles to the west of Inverness, which may with great probability be attributed to the north wind blowing there, not from the sea, but over the counties of Ross, Caithness, and Sutherland; and it may be, this difference of climate would be still more severely felt, if the sharpness of these winds was not checked by the warm vapours arising from many intervening lochs, and particularly from Loch Ness (*d*). The herring fishing is carried on in the same manner in the Murray Firth as in the Firth of Forth, except that the number of boats is smaller, and each of the boats employs fewer hands (*e*). There may be, one season with another, five hundred boats, and, allowing six to a boat, about three thousand men (*f*). The herrings caught here are lean; but, notwithstanding that, are very sound and firm, and therefore fittest for the consumption of the people in the sugar islands, and other countries in very warm latitudes; for though the large fat fish are infinitely more delicate, and consequently fetch a high price at their proper markets, yet, though ever so skilfully and carefully cured, they are apt from their oiliness to become rancid in sultry climates, and in that state are not either palatable or wholesome (*g*). This herring fishery therefore deserves public notice and encouragement for many reasons. It serves in the home consumption of both fresh and salted herrings, to furnish a food, which experience shews to be both nourishing and cheap, to the poor people in general, and consequently, which is a matter of great importance so long as the principal trade of the country consists in the export of provisions, to keep down the rate of other kinds of victual. It is, or at least it might be, an encouragement to the undertaking of other fisheries, such as cod, ling, hake, and would in time lead us

(*b*) Hætoris Boethii Scotorum Regni Descriptio, fol. 5. Joannis Lessæi Regionum et Insularum Scotiæ Descriptio, p. 28, 29. Additions to the English Translation of Camden's Britannia.—(*c*) Political Survey of Great Britain, vol. i. p. 64.—(*d*) This seems to be justified from Sir George Mackenzie (afterwards Earl of Cromarty) his observation, that rosemary escaped in gardens near the river Ness in winters, when it perished in gardens farther south, as we have remarked before in speaking of Loch Ness.—(*e*) Spruel's Account Current between Scotland and England. Atlas Maritimus et Commercialis, p. 9.—(*f*) Lindley's Interest of Scotland considered, p. 194. There are many laws directing the manner of curing these herrings, and officers appointed for inspecting these fisheries, and therefore it is hoped they arrive in such a condition at foreign markets, as to reflect credit on the country they come from.—(*g*) See the several treatises on the importance of the herring fishery, lately published, in which the various sorts of herrings, and their different markets, are distinguished.

to the almost entire possession of the whale fishing, which, frugally carried on, would be more beneficial than any; and fisheries in general are known to breed the greatest number, and those too of the best seamen. Add to all this, that whatever encouragements are hereafter given, must operate entirely on pickled herrings exported, and consequently turn the sea into a mine, and by bringing more money amongst the inhabitants, enable them to increase and extend their other improvements (*h*). But to do this effectually, there ought to be at least one good port made at the public expence; and, from what has been hinted before, as to the bay that lies eastward from Inverness, this expence need not be very large; which act of public beneficence would raise the people, and put an enlarged commerce more immediately in their power (*i*). Such a port would be very convenient for our men of war; and perhaps it might not be found very difficult to construct docks and yards in the same place, or at least within the compass of the bay, or in the Firth of Cromarty, which would quickly excite endeavours to bring down, and at the same time to plant timber of all sorts, and turn the thoughts of the inhabitants to the producing naval stores of every kind, which would be very practicable when they had a market at hand, and in a very short space render the public gainers, by the sum it should appear necessary to lay out towards carrying such an undertaking as this into execution (*k*).

In consequence of such a condescension, there is certainly nothing improbable, at least nothing impossible, in supposing, that in a country where labour is so cheap, and where, however thinly peopled, the greatest part of the inhabitants are glad to do any thing for bread, the conjunction of the lochs, so as to make an easy and direct communication between the two seas, might be undertaken and accomplished (*l*). This would have a great variety, and amongst these, no doubt, many unforeseen good effects; but some are so obvious, that methinks they cannot well be disputed. In the first place it would bring, or rather it would keep many thousands of people in these districts, which stand in so much need of inhabitants. It would render the supplying them with corn, so easy and expeditious, that industry would then furnish immediate subsistence, and of course raise towns where there are only miserable villages, and villages where-ever there are at present only a few huts. It would by degrees, as experience increased, bring a country into cultivation, that has been barren for ages thro'

(*h*) Dictionnaire de Commerce, tom. ii. col. 765. Where it is acknowledged that Scots herrings well cured, and carefully packed, equal, and even excel, the Dutch. — (*i*) It is allowed that here is already a very good road, safe anchorage, and room for abundance of ships; so that where nature has done so much, art would easily do the rest. — (*k*) Whoever adverts to the natural, and therefore necessary connection of causes and effects, will see that this method would as certainly produce shipping and naval stores, as the encouragement of fisheries furnishes seamen. — (*l*) See what has been already hinted as to the practicability of such a communication. Political Survey of Britain, vol. i. p. 116.

neglect, and art and industry would, in half a century, discover advantages, of which we have at present no conception (*m*). For such a canal would enable the active and assiduous merchant to transport the returns of his trade with the West Indies to the east side of the island, which would not only augment, but vary, the assortment of the cargoes sent from the ports in the Firth of Murray into the northern, and other parts of Europe, and the returns which these would produce, could not but be reciprocally advantageous to the traders on the west side of the island (*n*); and every year would strengthen and enlarge this intercourse, to the mutual benefit, not only of the inhabitants on both sides of North Britain, but become likewise the source of a comfortable subsistence to the new colonies settled on the banks of the conjoined lochs. Smile not, reader, at these visionary settlements! or treat as chimerical schemes these projects of distant advantages! for there was a time, when all that now results from our American plantations, the almost innumerable commodities we bring from them, and the prodigious produce of those manufactures, which the establishment of these new markets gave being to in Britain, were as arrant visions; and in the light of chimerical projects, ridiculed to the full as much, by those who could look no farther than their noses, and made it a high point of their short-sighted sapience, to treat as idle and imaginary whatever they either did not, or would not comprehend (*o*). But we live surely in more enlightened times, are better acquainted with commercial effects, that revelation of the Divine Will which is derived to us through the light of reason, and instructs us to enlarge our happiness by supplying the wants, and taking off the superfluities of other men, even in the remotest countries, and by such a communication extending notions of civility, and the knowledge of true religion, even to the end of the earth (*p*). If these are visions, they are the visions of public spirit; if they are dreams, they are the dreams of one who has nothing more at heart than the universal felicity of mankind.

BUT why visions, why dreams, why projects? Is there no evidence to support the credibility of these conjectures? Is it impossible to convince rational men that they are something more than visions, dreams, or projects? Surely there is. In the short account that we have given of the coast of Murray Firth, it appears to be full of declining burghs, decayed har-

(*m*) These people, whether drawn hither or kept, must remain upon a principle of industry; and consequently, in proportion as their own circumstances improved, private interest would bind them the stronger to be good subjects. — (*n*) To suggest particular advantages before they are actually produced, might occasion disputes, which are endless; but that in most countries the same causes will produce the same effects, is a maxim that cannot be disputed. — (*o*) In order to be convinced how long this humour lasted, see the *CITY MADAM*, a comedy by Philip Massinger, in the eighth volume of Doddsley's collection of old plays. — (*p*) By adopting these principles, Portugal and Holland, though very small in point of territory, became, the former the most flourishing monarchy, the latter the most potent republic, in Europe.

bours, ruined churches, fallen monasteries, and the remnants of castles that were palaces at the time they were built (*q*). All this country, therefore, was once better peopled than it now is, and those people were in better circumstances too; that is, they had more arts, more manufactures, and more commerce, amongst them, than they now have; and to close this demonstration, they consumed those provisions, the exportation of which constitute the little trade that is left. History attests the truth of all this; it shews us, at least in a great measure, what the ancient state of this country was, and the period of time in which it sunk to what it is. We cannot, indeed, produce the same authorities to shew that the remaining part of the breadth of North Britain was once in as flourishing a condition; and what does this prove? Not that it never was in such a state, or ever can be put into such a state, but that it was decayed long ago: Yet there are some vestiges of former greatness. The castle of Urquhart was heretofore a large magnificent and costly fortress. There are, besides the ruins of several others, particularly near the west coast, the wretched remains of a fort, attributed by tradition to King Fergus (*r*). These, sure, were not erected to cover a waste and uncultivated country. Desarts are a species of fortification, and will protect themselves.

BUT, to put the matter beyond all doubt, a very judicious historian tells us, that Inverlochy was designed by nature for a commodious harbour, and, if properly improved, must become a place of great commerce (*s*). Was he too, as well as I, troubled with visions? No, certainly, for a much more ancient historian assures us, that it actually was so, though in a period very remote, and that it was destroyed by the Norwegians and Danes (*t*); from whence we may conclude, that either this place, or some other in its neighbourhood, may, in peaceable and settled times, be rendered a place of trade again. We must do great injury to the age in which, and the government under which, we live, not to acknowledge that they are much more favourable to such undertakings than any within the reach of credible history (*u*). We cannot but be satisfied, that there are many places in Britain, and the reader will recollect some instances, even within the compass of this chapter, that have recovered from circumstances very little better, which may certainly plead for some degree of attention to a spot, that, though it has lost the effects, retains, however, the capacity of improvement. The true question then comes to be this, what interest has government in adverting to schemes of this kind?

(*q*) True Description and Division of Scotland. Additions to Camden's Britannia. Theatrum Scotiae. — (*r*) Joannis Leshæi Regionum et Insularum Scotiae Descriptio, p. 29. The ruins of King Fergus's Castle are marked in the Map of General Wade's Roads. — (*s*) Buchanani Rerum Scotticarum Historia, lib. i. — (*t*) Hectoris Boethii Scotorum Regni Descriptio, fol. 4. Camdeni Britan. p. 716. — (*u*) To be convinced of the truth of this, in regard to North Britain, the reader need only consult, Select Transactions of the Improvers of Agriculture in Scotland, p. 389, 443.

Answer, many and great. If such a communication could be established, and the descendants of the people now residing kept in the country, which would of course attract others; they would find the means of subsisting, and inland trade and foreign commerce would gradually increase. The commons would then live better, they would raise more of their own produce, they would consume that produce, and, by consuming it, they would pay taxes (*w*). In countries where the people live very hardly, that is, in plain English, are half starved, their landlords may have pretty good estates, and their rents be tolerably well paid, from the exportation of their produce (*x*). But the revenue will reap little from hence, and the money that such a commerce brings in may be spent any-where; whereas, if arts and commerce are introduced, and a great proportion of the common people, who now either list for soldiers in our own, or in foreign service, or go abroad in other capacities, to seek bread (*y*), find the means of maintaining themselves, and staying at home, they will, by their industry, help each other to live at a different rate, and repay thereby largely in excises and customs, that government, which has the goodness to excite, support, and encourage, their first endeavours, and by such a salutary attention, put it in their power so to live (*z*).

In proceeding still farther on the north-east coast of Scotland, we meet with several rivers of no inconsiderable course, which, however, are not of any great service in point of navigation. The river Beaulieu absorbs the water of five lakes, runs many miles, and then falls into the loch of the same name. Both river and loch derive their appellation from a stately abbey, of Cistercian monks, founded by John Lord Bisset, plentifully endowed, and which was so called from the remarkable pleasantness of its situation (*a*). In my opinion, the Romans penetrated thus far, and little, if at all, farther; and to them I attribute a great part of those remains which have been discovered at low water, and from whence it is very probably conjectured, that what is now a loch was once dry and habitable. The cairns, or huge heaps of stones, that are seen under water, are most likely to be Danish; but the urns found likewise, seem to be monuments of the Romans having had there, at least, a temporary fortress (*b*). There is abundance of fine timber, though chiefly fir, on the banks of this river; but the falls in it are so

(*w*) Plutarch, in Solone, et in Catone. Reflexions politiques sur le Finances, tom. i. p. 426, 427. Wallace's Dissertation on the Numbers of Mankind, p. 88. —(*x*) See, as to this point, the Interest of Scotland considered, p. 35, 36, 37. —(*y*) Sally Oeconomies Royales et Servitudes Loyales, tom. vii. p. 273, 274. Sir William Temple's Observations on the United Provinces, chap. vi. —(*z*) Idea de un Principe Politico-Christiano, Empresa lxxvii. M. Vauban, Projet d'une Dîme royale. Houghton's Collections for the Improvement of Husbandry and Trade, vol. i. p. 83, 84. —(*a*) Hectoris Boethii Scotorum Regni Descriptio, fol. 4, 6. An Appendix to Spotswood's History of the Church of Scotland, p. 14. Additions to the English Translation of Camden's Britannia. —(*b*) Philosophical Transactions of the Royal Society, No. ccliv. p. 231.

many, as to prevent its being brought to an advantageous market (*c*). The river Connel is swelled by the water of no less than six lakes, and rolls with a copious stream into Cromarty firth, passing by Dingwall, an old royal burgh, near its fall, and on the south side, at the mouth of the firth, stands Cromarty (*d*). Of the river there is little or nothing to be said, except that it is famous for producing pearls; but the firth is one of the finest harbours in this island, and by ancient geographers therefore stiled justly *Portus Salutis*. Narrow indeed at its entrance, yet very safe within, two miles broad, and fifteen in length, notwithstanding which, it is, in a great measure, without ships, and without trade (*e*). There is a large river runs out of Loch Shin, in the county of Sutherland, which loch is twelve or fifteen miles long, and which river empties its waters into the firth of Dornok, or Tayne, royal burghs, or ancient corporations, both; the latter standing on the south, the former on the north side of the firth (*f*). A few miles farther north the river Vynes falls into Murray firth; and, a little beyond that, the river Helmsdale forms a small creek at its mouth, which is the last dependant on the port of Inverness (*g*). All these rivers abound with fish; and the people are very industrious in making the best use they can of the several inlets along the coast, and of the few, and those small vessels, they have. Yet surely, with a little encouragement, they might be put into a way of doing something better for themselves, and becoming thereby of more consequence to the community, considering that they have immense quarries of white marble, corn, salt, salmon, beef, wool, hides of various kinds, and tallow; to say nothing of silver, lead, copper, and iron mines, that are known to be in the countries behind them, or of the report, that there is gold found in some of the streams of Dournelle; and yet, perhaps, if these countries were at a much greater distance, we might be inclined to visit and search them more strictly (*h*). On the coast of Caithness there are also several rivers, that running an east course, fall into the firth, and, amongst these, the most distinguishable is that, at the mouth of which stands the burgh of Weick (*i*), the chief place in the county, and from which we sometimes find it stiled the shire of Weick.

(*c*) As I have been informed by persons well acquainted with this country.—(*d*) Camdeni Britannia, p. 717. Atlas Maritimus et Commercialis, p. 8. Ports of North Britain, with their Members and Creeks.—(*e*) Joannis Lestæi Regionum et Insularum Scotiæ Descriptio, p. 27. Camdeni Britannia, p. 717. Atlas Maritimus et Commercialis, p. 8.—(*f*) Buchananii Rerum Scotticarum Historia, lib. 1. Additions to the English Translation of Camden's Britannia.—(*g*) Hectoris Boethii Scotorum Regni Descriptio, fol. 4. Atlas Maritimus et Commercialis, p. 8. Crouch's Book of Rates, p. 387.—(*h*) Joannis Lestæi Regionum et Insularum Scotiæ Descriptio, p. 28. Additions to the English Translation of Camden's Britannia. Atlas Maritimus et Commercialis, p. 8.—(*i*) Hectoris Boethii Scotorum Regni Descriptio, fol. 4. Joannis Lestæi, Regionum et Insularum Scotiæ Descriptio, p. 29. Camdeni Britannia, p. 717.

THE greater part of the rivers in this county of Caithness, and in that of Strathnaver also, run almost in a direct line from south to north, which renders it manifest that the scite of these two counties is a kind of an inclining plain, which may in some measure account for their being, as we have elsewhere observed they are, much milder and more fertile; than from the principle of judging of climates by their latitudes, is commonly imagined (*k*). The river Thurso, in Caithness, does not run above twenty miles, and then falls into a bay, upon which stands the town of Thurso, where there is a custom-house, a small port, a few vessels, and a little trade (*l*). West from hence runs the river of Fors, at the mouth of which there is also a little town of the same name. In the county of Strathnaver, the first stream of consequence that we meet with, is the river Strathy, which runs out of a loch of the same denomination, and, after a course of between twenty and thirty miles, falls into a little creek, which is called Strathy Bay. Armisdale river, a large stream, but of much shorter course, is the next; and to the west of this lies the water of Naver (*m*), flowing from a loch of the same name, the greatest body of water in this county, and from which, in truth, it derives the appellation of Strathnaver, or Strathnaver. There are, besides these, two other rivers, running out of the lakes Loyal and Dourness. There are few or no rivers of any note in these counties that run into the Western Ocean; but there are many noble bays, and large inlets of the sea, which are of some, and might be of much greater benefit, as well in respect to the subsistence of the inhabitants, as in regard to commerce and navigation (*n*). But these belong properly to the next chapter, though very little can be said of them in the manner that might be wished, till we obtain those accurate charts, and authentic informations, of which the public is in expectation, from a gentleman who has already given the most satisfactory account of our islands (*o*).

AFTER detaining the reader so long upon subjects that may very probably seem to be equally dry and unentertaining, it is but just that we should assign some reason for their taking up so much of his time, and of our own; and, it is presumed, that the reason, when given, will appear sufficiently weighty, and prove a very full apology for all the pains that have been bestowed

(*k*) Camdeni Britannia, p. 718. Heylin's Cosmography, book i. p. 268. D'Audifret Histoire et Geographie Ancienne et Moderne, tom. i. p. 260, 261.—

(*l*) Luyt's Introduct. ad Geographiam, §. ii. cap. 23. Additions to the English Translation of Camden's Britannia. The ports of North Britain, with their members and creeks.—(*m*) Joannis Lestzi Regionum et Insularum Scotiæ Descriptio, p. 27. Buchanani Rerum Scotticarum Historia, lib. i. Additions to the English Translation of Camden's Britannia.—(*n*) It is from these bays that the inhabitants derive all the conveniencies they enjoy, which are as it were an earnest of what might be drawn from them, if properly attended to and improved.—(*o*) Mr. Murdoch Mackenzie, who has published a most admirable account of the Orkney and Lewis Islands.

about them (*p*). The wealth of this, and indeed every other nation, arises chiefly from the number of the people, their industry, and the wisdom of the government, in rendering both properly subservient to the interest of the commonwealth. The counties of Inverness, Ross, Cromarty, Sutherland, Strathnaver, Caithness, and their dependencies, comprehend very near four tenths of the continent of North Britain (*q*), and, it may be, three tenths of the inhabitants, that is, upwards of four hundred thousand souls; and whoever considers this, and at the same time collects, from the laws passed at and since the Union, how very small a share they pay towards the public revenue of that country (*r*), though there is great probability it is as much as in their present circumstances they can bear; will easily comprehend, how great an advantage would arise to the state, from their being put into a condition to live in an easier and better manner than they do (*s*), which can only arise from their country being better known, and, together with all the natural advantages it possesses, put into a way of improvement, for which, most certainly, the people want not genius or abilities, or, I will venture to add, inclination. What the particular impediments are we can never know, at least with that degree of certainty which is necessary to remove them, till we are better acquainted with these places, and with every thing that regards them and their inhabitants; and if, by setting the necessity and importance of this in a proper point of light, I can any way contribute to the happiness of individuals, and the welfare of the public, I hope it will be allowed that the labour of myself, and attention of my readers, hath not been ill bestowed.

The river Clyde, stiled by the modern writers in Latin, Cluda; by Tacitus called Glotta; and by Ptolemy, Clota, rises out of Tinto Hill, near a place called Arrick Stone, on the confines of the two shires of Peebles and Lanerk (*t*). It runs at first north-westward, till, being joined by another stream, it passes by Crawford, and runs directly north, through the famous moor of the same name, anciently renowned for producing no despicable quantities of gold dust, and lapis lazuli; as it still is for the rich mines of lead belonging to the Earl of Hopton, which are said to have been discovered through the endeavours used by Sir Bevis Bulmer, in

(*p*) It very often happens, more especially in works of this nature, that what costs the greatest pains is not read with the greatest pleasure. — (*q*) It has been computed there are upwards of twenty-three thousand square miles in North Britain, and of these those counties comprehend upwards of nine thousand. — (*r*) When the cels in North Britain (which is in the nature of our land tax) amounts to two thousand nine hundred ninety-seven pounds a month, these counties pay one hundred sixty-three pounds odd money. — (*s*) It ought to be considered that, from the circumstances of the inhabitants, and the cheapness of labour, great improvements may be made at a small expence in these places. — (*t*) Tacit. in Vit. Julii Agricolaë. Claudii Ptolemæi Geograph. lib. viii. cap. 2. Joannis Lestæi Regionum et Insularum Scotiæ Descriptio, p. 12.

the beginning of the last century, to find a gold mine (*u*). After traversing this moor, the river declines eastward, and fetching a considerable compass, turns again to the north-west, when receiving a large supply of water from the river Douglass, it comes to Lanerk, a royal burgh, the name contracted from Lan erig, that is, the Bank of the River, by the Romans called Ugrulentum, which is the chief place in the shire; and here there is a bridge over it, of such conveniency to the adjacent counties, that tolls were granted for its support upwards of fifty years ago, which by repeated acts of parliament are still subsisting (*w*). The Clyde then leaving Hamilton at a small distance, about which there is as good oak timber as any in the island, proceeds to Glasgow, which it reaches after travelling about fifty miles from its source (*x*). Here being become both broad and deep, it continues its progress, dividing the shires of Renfrew and Dunbarton, and having passed the town of Renfrew, and soon after received the two rivers of the name of Cart, it moves majestically on till it absorbs also the river Levin, issuing from Loch Lomond, being overlooked from the north by the castle and town of Dunbarton, which stand on that river; and thus swelled with subsidiary streams, having passed New Port Glasgow, and Greenoch, and washed a part of Argyleshire, it joins its waters to those of the sea, after a course of 70 miles (*y*).

THE great glory of the Clyde is the ancient and noble city of Glasgow, indisputably allowed to be the second in North Britain. The bishoprick is said to have been founded towards the close of the sixth century by St. Mungo, in succeeding times reputed its patron (*z*). Many centuries after it became the see of an archbishop, Doctor John Blaccader being the first honoured with that title, in 1481. Before this, a university was founded and endowed by Doctor William Turnbull, then bishop of Glasgow, in 1453, under the auspice of King James the Second, and with the participation of Pope Nicholas the Fifth. It was protected, and in a peculiar manner favoured, by the succeeding princes, down to James the Sixth, who saved it from ruin, re-founded and re-endowed it; subsequent to which it has been also honoured with distinguishing marks of their attention by all our monarchs, and occasionally also by the legislature (*a*). This university consists of a single college, regularly built, formerly separated from the town by a wall, and of

(*u*) Buchanani Rerum Scoticarum Historia, lib. i. Camdeni Britannia, p. 696. Additions to the English Translation of Camden.—(*w*) Baxteri Glossarium Antiquitatum Britannicarum, p. 247. Stat. x. Geo. II. cap. 20. §. 1.—(*x*) Hæstori Boethii Scotorum Regni Descriptio, fol. 3. Camdeni Britannia, p. 696. Baxteri Glossarium Antiquitatum Britannicarum, p. 82.—(*y*) Buchanani Rerum Scoticarum Historia, lib. i. Additions to the English Translation of Camden. Atlas Maritimus et Commercialis, p. 18.—(*z*) Joannis Lestæi Regionum et Insularum Scotiæ Descriptio, p. 12. Appendix to Archbishop Spotswood's History of the Church of Scotland.—(*a*) Hæstori Boethii Scotorum Historiæ, lib. xviii. p. 378. Additions to the English Translation of Camden. Appendix to Archbishop Spotswood's History of the Church of Scotland.

late years considerably enlarged. At present justly distinguished by a strict and accurate method of educating youth, so as to qualify them for all the offices of active life, and to render the fruits of their studies conspicuous in their conduct, as useful members of society. In one point they are singular, as being enabled, by the munificence of a generous benefactor, to send exhibitioners to the university of Oxford. A thing worthy of imitation; since a union of principles and interests is the highest benefit that can accrue to both nations; the promoting of which for the common benefit, will ever, and, in every part of the island, be the aim of all true patriots (*b*).

GLASGOW is, in other respects, a large, well-built, regular, neat, and commodious city, with two, or rather four wide streets meeting in a spacious area, which forms the market-place, all the houses of a just height, and nearly of the same aspect. The ancient and the modern buildings for public uses, seem to vie with each other; the former are venerably magnificent; the latter elegantly substantial (*c*). The cathedral is a stupendous piece of architecture, which has been admired for ages. The new church is a noble structure; the college has a fine free-stone front towards the city. The town-house, as it would be called in South Britain, is solid, spacious, and convenient; and there is a noble bridge, consisting of eight arches, over the Clyde, the source of all this grandeur, with a pretty large suburb on the other side of it. As to the shape of the city it is nearly square; and, besides those already mentioned, it has other public edifices of less importance, all kept in good order, and perfect repair, which is owing to a true spirit of commerce which prevails amongst the inhabitants, and is properly sustained by indefatigable industry, and supported by a laudable frugality (*d*).

BEFORE the union this city made a remarkable figure, as having some natural advantages, which enabled her inhabitants to carry on a considerable trade to the western parts of Europe. But it was not till after the union, that her merchants had it in their power to display, in an extensive degree, the benefits derived to them from their convenient situation, by embracing the trade of the plantations. They very soon saw what might be done, and they have ever since been very vigorous in their endeavours (*e*). The profits arising from hence encouraged a true mercantile spirit; and at the same time that it enabled them to live by, instructed them in the necessary means, and the proper instruments, for augmenting and rendering this commerce

(*b*) From private information.—(*c*) Additions to the English Translation of Camden's Britannia. Short Account of Scotland, p. 107, 115. See the Article of Glasgow in Collier's Historical and Geographical Dictionary, vol. i.—(*d*) Camdeni Britannia, p. 696. Atlas Maritimus et Commercialis, p. 18. Brome's Travels over England, Scotland, and Wales, p. 215.—(*e*) Additions to the English Translation of Camden. Short Account of Scotland.

still more extensive, and of course more beneficial (*f*). In consequence of this, and of their having countries on every side capable of cultivation, and not destitute of people, properly inclined, fit for labour, and willing to be instructed, they undertook, and perfected, variety of improvements, and, in a very short space of time, introduced a diversity of woollen, linen, leather, iron, and earthen-ware manufactures; set up a flitting-mill, rope-walks, soap-works, sugar and glais-houles; and thus laid the true and broad foundation of a lucrative commerce, in the encouraging of art and industry on every side, chusing to fix the hopes of their own prosperity on being the authors and patrons of the prosperity of others. As their materials were collected, augmented, and improved, their commerce grew daily more extensive, which created new demands, and consequently produced a want of new materials, and new instruments, to support it, which they have gradually procured; and all these new establishments have been prosecuted with great diligence and attention, as is evident from the spirit of the people, and the condition of the country round them. The town of Paisley, in particular, is a striking instance of this; where, within the period before-mentioned, every loom for weaving linen has produced at least twenty; and the people are continually turning their thoughts to new inventions. The same thing might be said of other places; but I propose a portrait rather than a history; and in this light one instance serves as well as many, and the reader's attention is not distracted by a multiplicity of objects, but keeps the principal point always in view (*g*).

BUT, though the success attending that commercial spirit which characterises the people of Glasgow, and other places in her neighbourhood, has been very great, and may very properly serve as an example of what that spirit may effect, even in North Britain, yet I am inclined to think, that, as this is usual in such cases, common opinion has magnified it beyond the truth (*h*). Neither has her prosperity maintained a continual flow; but, on the contrary, met with some, and those very untoward, interruptions. For, not to mention the disasters brought upon her by popular tumults, or the calamities she has experienced from civil war, even her trade has felt some inconveniencies (*i*). The Baltic market is not what it once was, in respect to her fisheries; some checks have been likewise felt in the linen trade; and the destructive, as well as infamous, practice of smuggling has, I am afraid, cramped one of the principal branches of her American commerce, by which I mean that of tobacco. For it is impossible, however necessary, to multiply

(*f*) *Atlas Maritimus et Commercialis*, p. 18.—(*g*) These are facts, received from several particular informations.—(*h*) *Additions to the English Translation of Camden. Atlas Maritimus et Commercialis*, p. 17. *Brome's Travels over England, Scotland, and Wales*, P. iii. p. 215, 216.—(*i*) These hints have been chiefly received from private information.

precautions against foul dealing, without doing, though it may be, both unwittingly and unwillingly, some prejudice even to the fairest trader (*k*). If freedom be not the very essence, it is at least so essential to trade, there is no restraining the one without injuring the other; and, if we reflect how much it indisputably turns to the mutual benefit of the colonies, and their mother-country, that the commerce between them should be as extensive as possible, it is certainly to be wished, that instead of discouraging smuggling by accumulated and accumulating legal limitations, we should rather endeavour to extirpate it by lessening the duties; which would not only take away the temptation from the fraudulent, and encrease the business of the fair trader, but would likewise augment the correspondence between the mother-country and her plantations, to the reciprocal benefit of both. But, in other respects, the city of Glasgow has received frequent marks of favour and protection from the legislature, in having the right to elect her own magistrates with the same freedom as the city of Edinburgh, confirmed by act of parliament (*l*). The duty of two pennies Scots on every pint of ale within the city, was granted to them by the parliament of Scotland in 1693, to enable them to pay their debts, beautify their town, and improve their trade, which was continued to them for a further term in 1705 (*m*), and this term, from time to time, farther enlarged by subsequent acts (*n*), which have been of extraordinary benefit to the place.

RENFREW, which is an ancient royal burgh, and the chief town of the shire of the same name, stands on the opposite side of the Clyde, a few miles below Glasgow; and, though it is not a very considerable place, is improving, as well in manufactures as in commerce. The ancient channel of the Clyde into which the tide flows, furnishes it with a very convenient harbour, called Puddoch; and, by spring tides, vessels of tolerable burthen are brought up to the bridge. The inhabitants addict themselves pretty much to the Irish trade; and having the benefit of a public ferry, draw no small advantage from being the centre of correspondence between the two counties on both sides the firth. Dunbarton, or Dumbritton, as anciently stiled, is also a royal burgh, and a shire town, a place of great antiquity, and very famous for its impregnable castle, is seated on the same side of the Clyde with Glasgow, fourteen miles to the west, where the river Levin falls into the firth of Clyde, from whence it derives a small, but safe port (*o*). In the

(*k*) This, in the eye of sincere patriots, is one of the most aggravating circumstances attending the crime of smuggling, that it introduces laws for the security of the revenue, which are detrimental to commerce. And what is this in effect but submitting to a slow poison, in order to cure a cut finger? — (*l*) W. et M. par. i. sess. 2. cap. 15. — (*m*) Scots Acts of Parliament, vol. iii. p. 381, 706 — (*n*) 1 Geo. I. sess. 2. cap. 44. 9 Geo. II. cap. 31. 26 Geo. II. cap. 81. — (*o*) Hæstoris Boethii Scotorum Regni Descriptio, fol. 3. Polydoris Virgilii Anglicæ Historiæ, lib. i. Additions to the English Translation of the Britannia.

year 1668, in the city of Glasgow purchased from Sir Patrick Maxwell a village near the bay of Newark, which, by the favour of King Charles the Second, was erected into a burgh of barony, under the name of Port Glasgow, where there is a large commodious haven, to which ships of any burthen may be brought, with all kind of conveniencies for the accommodation of commerce, and a good town daily increasing, which belongs to, and is, properly speaking, the harbour of Glasgow. For here is a custom-house, which is a handsome building, and has a fair establishment of officers, and the jurisdiction of the whole firth and river on both sides (*p*). It may not be amiss to observe, that the last grant of the duty upon ale to the city of Glasgow, extends to this place, and to the village of Gorbels, which is on the south bank of the Clyde, directly opposite to Glasgow. At a small distance from Port Glasgow stands the town of Greenock, which above a century past was erected into a burgh of barony, in favour of the ancient family of Shaw. About fifty years ago, the then proprietor, Sir John Shaw, to his immortal honour, began, at his own expence, to form a convenient haven here, which was afterwards, by subscription of the inhabitants, rendered very large and commodious, so as to be at length very little inferior to Port Glasgow (*q*). For the support and improvement of this burgh and harbour, building a town-house, and other works of a public nature, a grant has been obtained of the usual duty upon ale, by a late statute, for thirty-one years (*r*). Besides these, there are several other harbours on the firth, which are all in a thriving condition, owing to that spirit of industry and commerce which reigns more here than almost in any other part of North Britain (*s*); a spirit which, if properly promoted, and suitably encouraged, will not fail of producing, in time, effects much superior to those which it has already produced, and thereby convince their southern neighbours, that the natural defects of North Britain, how great soever they may be imagined, will, notwithstanding, yield to industry and perseverance; and being once overcome, not the face, but the nature of the country, will be so changed, that posterity may possibly dispute whether those defects ever existed.

THERE are some farther remarks relating to the firth of Clyde, which, in a work of this nature, ought not to be passed over in silence. The herring fishery here is very considerable, not barely in respect to the quantities of herrings caught, but also from the excellence of the fish, little inferior to those taken in deep waters, and the particular skill and care in the packing and curing them, so that Glasgow herrings have

(*p*) Crawford's Description of the Shire of Renfrew, p. 86. Atlas Maritimus Commercialis, p. 17. Crouch's Book of Rates, p. 388. — (*q*) Additions to the English Translation of Camden. Crawford's Description of the Shire of Renfrew, p. 90. Beawes's Merchants Directory, p. 591. — (*r*) Stat. xxiv. Geo. II. cap. 38. — (*s*) Amongst these we may particularly reckon Gourock, at present a creek to Greenock.

come to foreign markets with as much reputation as the Dutch (*t*). That this is in itself a matter of great importance, the reader will easily conceive, when he is told that upwards of thirty thousand barrels have been exported in a season. The Glasgow merchants, many years ago, attempted what would be of the utmost importance to this country, the joining this to the other fisheries; and with that view endeavoured to strike into the whale fishery, but they were not so fortunate at that time to bring this about (*u*). If by any means they could be enabled to carry this great design thoroughly into execution, so as to embrace the herring trade in its utmost extent, and to pursue it in the deep waters, and on the Lewis coast, as well as their own, there would very valuable consequences follow from it, particularly this, that it would be then, effectually and for ever, secured to the subjects of Britain, to whom it naturally belongs; and though hitherto we have not been able so to avail ourselves of the advantages we possess, as fully to accomplish this point, yet there is nothing clearer, than that if it was once accomplished by the merchants at Glasgow, or the inhabitants of the isles, it never could be again wrested from us (*w*).

ANOTHER point is, the happy situation of all the ports upon this firth for the trade of America, the West Indies, and also for Spain and Portugal, which, as we before observed, has been within half a century past cultivated with great care and success: Neither ought the benefits arising from hence to be envied, when it is remembered, that from Glasgow prodigious numbers of young people have been sent into Virginia, and the other colonies, where by their industry they have made considerable improvements, and raised immense returns to Great Britain in general; and it is very natural that those who thus, at the expence of their own inhabitants, have contributed to people the plantations, should reap a share in the profits arising from those returns which the labour and industry of these people produced. But to augment the value, as well as to enlarge the extent of this important commerce, it were to be wished that the western part of North Britain was more cultivated and better peopled (*x*). For the inhabitants of those countries when more numerous, would be able to consume great quantities of American and West India commodities, which must be paid for in their own manufactures; and, whatever may be thought of it

(*t*) Dictionnaire de Commerce, tom. ii. col. 765. Atlas Maritimus et Commercialis, p. 112. Beaves's Merchants' Directory, p. 590. — (*u*) Lindsay's Interest of Scotland considered, p. 209. — (*w*) Because we should then carry it on cheaper than any other nation could. — (*x*) This may seem to be arguing in a circle, supposing a benefit to arise from sending people to cultivate lands in the colonies, and then making the advantages derived from this, depend upon increasing the number of people in the mother-country. However, the fact is so, and may be very easily explained. Multitudes leave their mother-country to go elsewhere than to the plantations; and it is these we recommend to be kept at home, to render the correspondence with the colonies more extensive, and to prevent their countrymen there, from feeling a necessity of seeking other markets.

by such as have been only conversant in practical commerce, it this cannot be effected, experience will shew, that in spite of all the diligence and industry that can be exerted in other respects, this commerce will find its limits, beyond which it will be very difficult, if not impossible, to carry it, but by recurring to this certain method.

ABOUT the time of the Union there was much discourse of uniting the firths of Forth and Clyde, and great advantages, then sufficiently explained, were proposed from it (*y*). We have not room here to enter into a discussion of this point, or into a detail of those conveniences, with a view to which the merchants at Glasgow have warehouses at Alloa, as we before hinted; but there is reason to question that they would have been very considerable, and might be so still. As to the practicability of making such a canal, there can be very little, if any, doubt about it. The space of ground intervening is not above twenty miles; and a most commodious communication by water might be made for as many thousand pounds; according to some computations, for much less (*z*); and therefore this is a matter that well deserves to be kept in memory.

THE river Irwin rises on the border of the shire of Lanerk; and running a north-west course for about twenty-three miles, makes the boundary of what was called the Bailiwick of Cunningham. As it falls into the sea, it meets with another considerable river from the south-west; and by the junction of both their waters there is formed a convenient harbour, upon which stands the ancient royal burgh of Irvin, or Irvine, a place celebrated long ago for the beauty of its situation, fair buildings, and great trade (*a*). But this being a barred port, and the sands gradually choaking it up, we find its decay mentioned at the distance of one hundred and fifty years (*b*). The inhabitants, however, were always distinguished for their industry; and therefore taking the advantage of every conjuncture, and availing themselves of all the helps in their power, and being of late years assisted by the legislature (*c*), they have so far revived their trade as to have the establishment of a port, with three creeks under its jurisdiction, and have also officers appointed to overlook the salt duties (*d*). Their chief trade is to Ireland with coals, of which they have great plenty, and very good, in their neighbourhood; and, besides this, they have an inland and coast trade, with some concern in the

(*y*) See the pamphlets published at that juncture, and compare the advantages proposed by the union with the consequences that have attended it.—(*z*) It has been carried so low as seven thousand pounds, and that too grounded on the actual expence of canals of the like kind made in South Britain.—(*a*) Joannis Lessgi Regionum et Insularum Scotiæ Descriptio, p. 10. Buchananii Rerum Scotticarum Historia, lib. i. Appendix to Archbishop Spotswood's History of Scotland, p. 39.—(*b*) Camdeni Britannia, p. 694.—(*c*) Stat. ix. Geo. II. cap. 27.—(*d*) Crouch's Book of Rates, p. 387. Establishment of the Officers for the Salt-Duty in North Britain.

herring fishing in the firth of Clyde (*e*); so that, however inferior to what they once were, they are at least recovering, and in process of time, perhaps, may become much more considerable.

THE river Air rises on the edge of Lanerkshire, and running through the county of its own name in a west course, near twenty miles, in which space it receives many auxiliary streams, falls at length into what is commonly called the firth of Clyde (*f*). This river is with great probability supposed to be the Vandogara, or Widogara, of Ptolemy (*g*). On the south side of it stood the ancient royal burgh of St. Johnstown, with a bridge over the river, consisting of four arches; but the new town of Air, which is the head of the shire, stands on the north side (*h*). It was formerly very famous for the beauty of its situation, the elegance of its public buildings, a very large jurisdiction, the greatest market in these parts, a good port, and a flourishing commerce (*i*). After the fatal battle of Dunbar, Cromwell built here one of his citadels for bridling North Britain, between the town and the sea, of which there are still visible some, though very small remains (*k*). This might probably be injurious to its commerce, but as at Inverness, here, was very beneficial to the inhabitants in another respect, for Cromwell's soldiers taught them to inclose their grounds, and to improve them according to the methods then in use in England. There is not only tradition to support this, but we see by books dedicated to Cromwell, that he was really a patron of these arts, and that his officers made their court to him by distinguishing themselves in this kind of knowledge (*l*). However, we find the town of Aire declined to such a degree, that in 1690 they had an act of parliament in their favour (*m*), which, notwithstanding, was so indifferently executed, that at the distance of ten years, or thereabouts, the place was in a very sad condition. Their harbour was so much decayed, that no bark or vessel could come over the bar, or lie at the quay; their bridge was ruinous, so were their highways; their Talbooth was falling down, and all other public structures

(*e*) Additions to the English Translation of the Britannia. Beawes's Merchant Directory, p. 587.—(*f*) Buchanan's Rerum Stoticarum Historia, lib. i.—(*g*) Claudii Ptolemæi Geograph. lib. viii. cap. 2. Camdeni Britannia, p. 694. Baxteri Glossarium Antiquitatum Britannicarum, p. 235.—(*h*) Additions to the English Translation of Camden. Short account of Scotland, p. 115.—(*i*) Joannæ Lessæi Regionum et Insularum Scotiæ Descriptio, p. 10.—(*k*) Additions to the English Translation of Camden.—(*l*) The English Improver improved, or the Survey of husbandry surveyed; discovering the Improveableness of all Lands; some to be under a double and treble, others under a five or six fould, and many under a ten fould; yea, some under a twenty fould Improvement, by Captain Walter Blith, London, 1653. 40. Besides the Dedication to the Lord General Cromwell, and the Council of State; there is an Address to the Honourable the Soldiery of these Nations of England, Scotland, and Ireland.—(*m*) Scots Acts of Parliament, vol. iii. p. 406.

in a like perilous state (*n*). Soon after the union, however, the face of their affairs began to change, and their inland trade reviving, the inhabitants by degrees resumed their commerce; so that their port, which has four creeks dependant upon it, is as much frequented as that of Irvin, and, besides the fishing and coasting, carries on some trade to Ireland, and to other places, which is every day increasing (*o*).

It may not be amiss to observe, that, at a small distance from the town of Aire, there is a bridge over the river Dun, of a single arch, which is ninety feet in length, and consequently not inferior to the famous Rialto at Venice (*p*). The town of Glenluce stands at the mouth of the river Luce, or, as some write it, Lufs, and bestows its name on that great bay of the sea, which bounds Galloway on this side (*q*). It is, notwithstanding, a place of very little importance, and only a creek to the port of Stranrawer, which will be mentioned in the next chapter. There is no doubt that this, and some other places, are capable of being rendered of much more importance than they are at present; but we must remark, in respect to almost all regions, where the wealth of the inhabitants consists chiefly in cattle and sheep, it very seldom happens that they are either very populous, or that the people apply themselves, at least with any assiduity, to manufactures; on the contrary, a certain number find a way to get their livelihood in what they esteem an easier manner, and the rest go elsewhere to seek it, from labour or art, which is the principal reason that, upon this coast, we meet with so few places that claim our notice in a work of this nature.

THE river Blainoch rises amongst the mountains that divide the shire of Aire from the county of Galloway, and running a south-east course ten or twelve miles, turns then almost directly east, and receiving in its passage two other pretty large streams, falls into the sea at Wigton, where it meets also with the waters of the river Cree, and the opening of the shore between them, constitutes what is called Wigton Bay (*r*). This place, the name of which is a compound of British and Saxon, signifying a town upon the waters, is an ancient royal burgh, with a tolerable harbour, and was formerly a place of great trade (*s*). At present it is the head of one of the divisions of

(*n*) From a Manuscript Memorial of the inhabitants of this borough, addressed to their magistrates, which is in my possession.—(*o*) Additions to the English Translation of Camden. Beawes's Merchants' Directory, p. 587. Crouch's Book of Rates, p. 386.—(*p*) Additions to the English Translation of Camden's Britannia. Itinerario d'Italia di Francesco Scoto, P. i. p. 25. Fynes Moryson's Travels, B. ii. P. i. chap. i. p. 88. St. Didier Descript. de la Ville & de la Repub. de Venise, p. 17. Mission Voyage de l'Italie, tom. i. lettre 17.—(*q*) Buchanan's Rerum Scotticarum Historia, lib. i. Crouch's Book of Rates, p. 388.—(*r*) Joannis Leidei Regionum et Insularum Scotiæ Descriptio, p. 8, 9. Camdeni Britannia, p. 692.—(*s*) Baxt. Gloss. Antiquitatum Britannicarum, p. 78.

Galloway, stiled from thence the shire of Wigton, has a custom-house, with a proper establishment, and nine creeks dependant upon it; but its commerce at present, though increasing, is by no means so considerable as might be expected from its situation, which with great probability may be ascribed to the causes that in the former paragraph have been assigned (*t*).

THE river Dee rises out of Loch Dee, which lies at the foot of the hills, that, as we before remarked, divide the shire of Aire from Galloway; and, after running many miles in a serpentine course, and receiving the waters of the great river Ken, declining more to the south-east, falls at length into the sea, with a very copious stream, on the east side of which stands the town of Kircoubright, or, as it is now written, Kircudbright, which, as some think, was known to the Romans by the name of Benutum (*u*). It is certainly a very ancient royal burgh, and was heretofore a place of great inland trade, and had a good share of commerce, for which it is very well situated (*v*). It is at present a member of the port of Dumfries, and has seven creeks dependant upon it. If not in a flourishing, it may be at least affirmed to be, in comparison of its neighbours, in a thriving condition, and, considering the natural advantages it enjoys, will in time, as the spirit of industry, manufacture, and traffick encreases, become in all probability a place of much greater significance, more especially when manufactures of different kinds shall be improved in these parts (*x*).

THE river Nethe, Nid, or Nithe, which in the British tongue signifies crooked, or full of turnings, and from which the country derives the name of Nithdale, rises in the south part of the shire of Aire; and running in a winding, but constantly in a south-east course, receives in its passage several rivers, the principal amongst which are the Scar and the Kair, falls at last with a very full tide into the sea, some miles below the town of Dumfries (*y*). This is an ancient royal burgh, and the chief town of a shire, which is composed of the country of Nithdale and the stewartry of Anandale (*z*). It was formerly famous for a great manufacture of woollen cloth, now decayed; notwithstanding that, there are more sheep bred in this shire than in any other in North Britain, some sheepmasters, so they are called here, having stocks of thirty thousand sheep, and rent farms of a thousand pounds a year (*a*). The town of Dumfries is admirably well situated: The castle

(*t*) Atlas Maritimus, p. 112, 113. Crouch's Book of Rates, p. 388.—(*u*) Hæd. Boethii Scotorum Regni Descriptio, fol. 3. Camdeni Britannia, p. 692. Baxteri Glossarium Antiquitatum Britannicarum, p. 40.—(*v*) Joannis Lestæi Regionum et Insularum Scotiæ Descriptio, p. 8, 9. Camdeni Britannia, p. 692.—(*x*) Crouch's Book of Rates, p. 386.—(*y*) Joannis Lestæi Regionum et Insularum Scotiæ Descriptio, p. 8. Buchanani Rerum Scotticarum Historia, lib. i. Camdeni Britannia, p. 691.—(*z*) Additions to Camden's Britannia.—(*a*) This, if my information be right, is a matter certain, and of public notoriety.

and the church are very handsome structures; the streets are wide, and in general well built. Here is an exchange for merchants, a custom-house, and a stately bridge of nine arches over the river. The inhabitants have always been an active and industrious people, by which they have preserved a great inland trade, supported chiefly by three annual fairs for cattle, which are much more frequented than any in the south part of Scotland (*b*). They have also availed themselves of their situation, the tide flowing, and bringing vessels of considerable burthen up to their bridge, though above six miles from the sea, so that they have a good share of commerce, and have imported three thousand hogshheads of tobacco in a year from Virginia (*c*). It is indeed, in comparison of its neighbours, a port of great business, and has seven creeks dependent upon it, exclusive of those belonging to Kircudbright, which, as we have already remarked, is a member of the port of Dumfries. This burgh has great obligations to the legislature, which granted them the usual duty upon ale for nineteen years, from the first of June 1717, to enable them to pay the debts of the town, to build a new church, to maintain their ministers, and to repair their harbour (*d*). This grant was not only continued for the further term of twenty-five years, but a new duty of tonnage has been likewise granted for cleansing the river Nid, rebuilding their public school, and maintaining other edifices in good repair (*e*), which indulgencies have been highly beneficial to the place, and contributed not a little to keep it in a flourishing condition.

On the same river, between Dumfries and its mouth, stands the village of Solway, from whence the frith receives its name, and which Camden, and other learned men, with great probability conceive to retain somewhat of the appellation of its ancient inhabitants the Selgovæ (*f*). On the sea coast, east of the river's mouth, stood a fortress, accounted impregnable till it was taken by King Edward the First, called Carleverock, or rather Caleverog, which, if we follow the sentiment of Camden was the Cantobrigum of Ptolomy (*g*); but in the opinion of Baxter, the Oxellon, or rather Uxela (*h*): The former is guided by the order in which the places are named; the latter purely by etymologies, both the Roman and British names signifying, as he interprets them, the castle by the sea side. But

(*b*) Additions to the English Translation of Camden's *Britannia*. *Atlas Maritimes et Commercialis*, p. 17. Brome's *Travels over England, Scotland, and Wales*, P. iii. p. 216.—(*c*) From the information of persons well acquainted with the place and its trade.—(*d*) Stat. iii. Geo. I. cap. 6.—(*e*) Stat. x. Geo. II. cap. 7.—(*f*) *Britannia*, p. 690. Baxteri *Glossar. Antiquitatum Britannicarum*, p. 215. The old name probably was Selgovarum Sinus, easily changed to Solway frith.—(*g*) Claudii Ptolomæi *Geograph. lib. viii. cap. 2*. His Words are, the cities of the Selgovæ, Carbantorigum, Oxellum (Bishop Fleetwood, in a copy I have, makes this Urellum) Corda, and Trimontium. Camdeni *Britannia*, p. 692.—(*h*) Baxteri *Glossarium Antiquitatum Britannicarum*, p. 256. He makes the British name *Caer ar lau er og*, i. e. *Arx ad Maunum Oceani*.

whoever was in the right, it is evident that Ptolomy meant to inform us that there was a town of note in these parts; and possibly as commerce increases, a new haven may be formed, or the inhabitants of Dumfries, like those of Glasgow, may incline to fix their port four or five miles below the town, to which port ships of any burthen may be then brought.

THE river Annan has its source at Arrick Stone, near those of the Clyde and Tweed. It is very remarkable, that though these three rivers rise as it were together, they run into different seas; the Tweed into the German ocean, the Clyde into the Irish sea, and the Annan into Solway firth, after passing through the stewartry of Annandale, to which it gives name, and a little below the town of Annan (*i*). This is supposed to be the Veromum of the Romans. Mr. Baxter thinks that the river was called by the Britons Avon am, or Aun am, i. e. the Mother River, and that the Roman name was only a British appellation latinized, Veromum being framed from Uar or Ui, that is, the castle on the mother river, which is probable enough (*k*). Annan is an ancient royal burgh, and was formerly a place that made some figure, in respect both to buildings and trade; but in the irruption made into Scotland by the protector duke of Somerset, in order to compel the Scots to marry their young Queen Mary to Edward the Sixth, it was burnt to the ground (*l*). It recovered from this misfortune but very slowly; and since the Union, the trade removing to Dumfries, it is now no more than a creek to that port. The Eike is the last river that runs into the Solway firth, and has no place upon it that deserves any particular description.

THUS we have gone through the rivers in North Britain that are any way considerable in point of navigation, from their having ports where they open into the sea; but with regard to rivers navigable in the strictest sense of the word, and of which so many, and such copious instances have been given in the former part of this chapter, there is hardly one in this part of the island. Yet South Britain is very far from being destitute of firths; for, not to mention that of Solway, there is on the west side what is called the Severn sea, and on the east, the opening of the Thames; that large estuary between Lynn and Boston; and the Humber; which are all firths in the same sense with those that are mentioned in North Britain, so that the southern part of this isle has all the advantages that an insular situation can give; and though most of these have been highly improved, yet, as we have shewn, posterity will have it in their power to make far greater improvements. The want,

(*i*) Joannis Lestæi Regionum et Insularum Scotiæ Descriptio, p. 8. Buchanani Re um Scoticarum Historia, lib. i. Camdeni Britannia, p. 691.—(*k*) Baxteri Glossarium Antiquitatum Britannicarum, p. 245.—(*l*) Camdeni Britannia, p. 691. Buchanani Rerum Scoticarum Historia, lib. xv.

however, of navigable rivers in North Britain is one of the most conclusive proofs that can be offered in support of our argument, that they are of the highest utility, since the want of these operates more strongly than any defects of soil or climate to the prejudice of this country, kept it always from making the figure it otherwise would have done in commerce, and has made it so very difficult for the inhabitants to recover the blows that their trade has received, or to retrieve, even to this hour, those commercial advantages of which, by a long course of labour, and the assistance derived from the legislature, their ancestors were once possessed; it is therefore no wonder that a very eminent author, who was desirous of recommending Ireland, should look upon this country as under insuperable disadvantages, in respect to commerce; which he has expressed so strongly, that I find it necessary to transcribe his own words (*m*).

“SCOTLAND, by its union with England,” says he, “enjoys already all the advantages of a free trade; but the barrenness of the soil, and the want of communication between the inland and maritime countries, through the almost inaccessible mountains, which detain the growth and manufactures of the country from exportation, and the commodities brought in by trade, from a proper distribution amongst the working people, leave us but little room to hope for any great assistance from thence.” The assistance which this author means, is furnishing hands for useful labour at a cheap rate, by which manufactures may be detained in some part or other of the British dominions, and not be taken from us by other nations, who are in a capacity of underselling us, by working cheaper; and certainly his reasoning would be conclusive, if the inconveniencies, which, not without a foundation of truth, he objects to North Britain, were absolutely irremediable.

BUT this is not the true state of the case. North Britain is very far from being destitute of rivers, or even of great rivers; and perhaps by a due application to industry and some expence, several of these might be made navigable at least in some degree. In ancient times the consequence of such rivers was not so well known as it is at present, or the means of helping natural defects so well understood (*n*). If it had, the labour and the charges bestowed upon a multitude of bridges, might

(*m*) Seasonable Remarks on Trade, with some reflections on the advantages that might accrue to Great Britain, by a proper regulation of the trade of Ireland, printed in 1769: with a dedication to his Excellency John Lord Carteret (the present Earl of Granville) Lord Lieutenant of Ireland, p. 23.—(*n*) In order to be convinced of this, we need only consider, how very late the practice of rendering rivers navigable, by a t, has prevailed in South Britain, notwithstanding the numberless advantages derived from those many and deep streams which were navigable by nature, and which notwithstanding, have been also much improved by the same means.

possibly have been better employed. But even in the way in which it is employed, the correspondence between the most distant parts of the kingdom is very much facilitated; and, while it was better peopled, there were more arts, manufactures, and commerce, than there are at present; and the great number of decayed burghs and ports plainly shew, that there was a time when they were in a flourishing condition (*o*); and therefore it is not only unreasonable, but against the light of evidence, to assert that there is any natural incapacity, which renders it impossible for the people who inhabit it to carry on manufactures, domestic trade, and foreign commerce, as well as their neighbours, though the want of navigable rivers may be, and certainly is, a great hindrance to their arriving at so desirable a state (*p*). But, beside the amendment of those natural defects which have been before stated, the conjunction of lochs, which we have shewn to be in many places practicable, would facilitate communication extremely, as there are many of them of a considerable extent, most of them very deep, and as they lie either in the heart of the country, or very near those inlets of the sea, which are called lochs likewise (*q*). It ought also to be considered, that the narrowness of this country would enable its inhabitants to avail themselves of all their natural advantages, with the assistance of a very few of these connections (*r*): Possibly if the junction of the two firths of Forth and Clyde, and of the lochs between Inverness and Fort William were once effected, they would either be sufficient, without further helps, or increase the number of people, and render their circumstances so much better, as to put such improvements more in their power (*s*). At all events, there is an easy and a very practicable

(*o*) The History of Commerce in North Britain has not been much attended to, but, notwithstanding this, it would be no difficult thing to prove it was once much more extensive, and incomparably more lucrative, than at present, otherwise the nobility could not have erected so many palaces, or endowed so many convents; neither could so many burghs royal, and of barony, been built in so stately a manner.—(*p*) We attribute the slow progress of commerce in North Britain, and its speedy decline from the height to which it was advanced, through the course of so many ages, in the reign of James V. to the want of navigable rivers, which made a multitude of different methods requisite to supply that defect; and as all these were countenanced and protected, if not contrived and supported by government, as that relaxed, they failed.—(*q*) As things stand at present, somewhat of this kind might be done in more than one instance to very great advantage, as to open at once a sea port in the salt water loch, communicating with what would become a kind of navigable river, by being let into it, and very often a great military road running by the side of the fresh water loch, which explains the commonness of such operations.—(*r*) The conjunctions proposed in the text might be effected, supposing the military to be chiefly employed at a very small expence in the government. They would, considered in the light of making the country thoroughly pervious, answer better than the roads which already subsist. The improvements and increase of people might be made, without any apprehension of their behaving otherwise than becomes quiet and industrious subjects.—(*s*) In the space of very few years the face of the country, and the disposition of the inhabitants would be entirely altered. The improvements which such communications would render facile, as well as practicable, would be of different sorts, viz. mines, agriculture,

practicable remedy by making great roads where-ever they are necessary. We have seen this actually performed for the sake of keeping this country; and, the next to this, there cannot be a stronger, or more weighty motive, than making the country worth keeping, which by these means might be also brought about.

It may not be amiss to add, in order to shew that these are no wild or chimerical notions, that something has been already done, or is at present doing, in every one of these methods. The rendering the Clyde navigable up to Glasgow for vessels of considerable burthen, if I am not misinformed, has been under consideration (*t*). The lead ore from Clifton mines is carried by land a few miles to Loch Lomond, and there embarked, disembarked again, loaded on carriages, and, after passing only a mile, is again shipped on board vessels in Loch Long, which opens into the firth of Clyde (*u*). The roads on which this ore is carried, are military roads, which are extended every year; and if occasionally the object was a little changed, and the circumstance of assisting mines, manufactures, and inland correspondence, taken into the system of continuing these roads, and carrying them even to the remotest parts of the island (*w*), which is far from being impracticable, and would not be very expensive, we should find all obstacles gradually overcome, and North Britain freed from those reproaches that have been too hastily thrown upon her. This will more clearly appear from the additional arguments offered in the next chapter. These remedies, so far as they have operated, shew plainly their natural efficacy, and that, if judiciously and vigorously pursued, they are very capable of producing all the effects that can be reasonably expected from them. The pushing these, therefore, steadily, and with judgment, so as to be constantly proceeding, and at the same time proceeding in such a manner as may turn most to the public benefit, is a point of the utmost importance to the inhabitants of North Britain, and, whatever it may seem, will in its consequences be found the first and greatest of all improvements (*x*).

ture, and manufactures, and the correspondence too of a very mixed nature, requiring strong horses, various carriages, and necessary accommodations for these in a great many places. — (*t*) If this should never be undertaken, it must arise from some real or supposed incompatibility between the interests of different burghs, and not from any natural obstacles; so that whether brought to bear, or not, my argument is not in the least affected. — (*u*) Nothing can come up more closely than this to my suggestion. If these mines were more remote from water-carriage, they could not be wrought to any profit; and therefore such communications would unquestionably occasion other mines to be wrought, of which there are plenty in these parts; and the working a mine of any sort with success, produces a town of course, of which this very mine is an instance. — (*v*) As the isthmus between the lochs is so very narrow, the conjunction might be easily made, and this little land-carriage saved; but from the mines to Loch Lomond, the military road alone makes it practicable. — (*x*) The profits which arise to private persons from cultivating lands, planting timber, or working mines, will very seldom admit of large, previous, and preparatory expences, as being often precarious, and always limited; whereas the advantages derived to the community by such improvements, are in their nature certain, and permanent in their duration. It is reasonable, therefore, that all such communications should be procured at the public expence.

This

This will be the better understood, when we consider, that reason, and, which is still stronger, experience, plainly shews, that, without this, all other improvements are of very little importance or duration. It is an easy communication, that produces a variety of markets; and without having many markets, no manufacture can lift its head: And though the doctrine may seem a little strange, this inland communication is of no less consequence to foreign commerce, as it not only furnishes the merchant with an opportunity of buying cheap, when the same kind of goods can be had from different places, but also supplies him with the like plenty of customers for his returns, without which his trade could not be very extensive, or carried on for any length of time, since small quantities of foreign commodities soon overstock the people who live scattered and poor, and yet within narrow limits. This is the true reason that we hear great complaints made (*y*), that new improvements have not answered, at least in that degree that was hoped; and indeed this will never be looked for, at least by wise men, till such communications are made as may supply the want of navigable rivers. Then, and not till then, the produce of improved lands will find a proper price, and manufactures of all kinds flourishing, repay industry in such a manner, as to check that roving spirit, which has been hitherto chiefly countenanced by the difficulty of finding a proper reward, either for toil or talents, without going to seek it in foreign climates (*x*). But this necessity being once taken away, the mischief would either cease gradually of itself, or be eradicated by wholesome laws, which would then appear as just and reasonable in their nature, as in policy they would be right and requisite; and though at first perhaps they would be thought a little severe, yet in the course of a very few years they might be relaxed without danger, since, when it is once brought to pass in any country, that the subsistence of a family becomes easier in proportion to its becoming more numerous, parents will find it their interest to instill such notions, as will supply the place of laws, and beget an opposite spirit to that which now prevails, as we see is actually the case in all rich countries, though in themselves ever so unpleasant. Besides this of keeping children at home being a natural principle, would in that respect be not only sooner established, but would also sink deeper, act with greater force, and grow imperceptibly more national than the other is now.

IN respect to Ireland, we have more than once observed, that except Great Britain, there is not perhaps in the world an island that possesses more natural advantages. The climate, soil, and productions, of this country, are such as render it

(*y*) In a treatise, intitled, "Reasons for applying to the king and parliament for an augmentation of stipend to the ministers of the church of Scotland, examined, Edinburgh, 1748," is asserted, that, exclusive of the interest of money expended upon them, all the improvements made in that country for an hundred years past, do not, one with another, produce five per cent.

wonderfully

wonderfully commodious to its inhabitants, as furnishing them with all the necessaries, and most of the conveniencies of life, with a large surplus of valuable commodities (*a*). To this we may add the peculiar happiness of its situation, by which it not only enjoys an easy and settled trade, with all the ports on the west coast of Great Britain, and the islands dependant upon it, but has also the command of a universal correspondence with all the parts of the known world, and more especially with America, which is, or might be, a matter of the utmost importance, in times both of peace and war, and from which it is capable of contributing exceedingly to the support of the British empire in that part of the world (*b*). Ireland indeed, all things considered, is in possession of so many benefits, and has the increasing and multiplying of these so much in the power of her inhabitants, that we may without any scruple affirm, they may with facility and certainty improve their country in all respects, to a higher degree possibly, than any of the like extent upon the continent, and at the same time accumulate such a strength, as to stand in no dread, with the assistance of the fleets and forces of Britain, of the envy even of her most potent neighbours (*c*). A circumstance sufficient to excite and to support the endeavours of her genuine patriots in their intentions not to spare either labour or expence, in order to verify from facts, what all, who have considered this island with attention, have unanimously pronounced to be in her power, and which has been so clearly justified by every experiment that has been hitherto attempted.

THE circumstance of all others that puts this most beyond doubt, is the happy distribution of her waters, which nature has so disposed as to render them equally favourable for almost every valuable purpose. The bays and inlets of the sea supply her with numerous harbours, as in the next chapter will be fully shewn, for the entertaining the most extensive foreign commerce; while, on the other hand, her rivers and lakes are no less happily placed, for the procuring her inhabitants all the advantages that naturally arise from an easy communication between the several parts of the country, and thereby furnish the means of a flourishing inland trade (*d*). It is true, that in order to attain these advantages, industry and prudence are requisite; but then, as we have already shewn, there is such a certainty of the good effects, and these have been already felt in so surprizing a degree, whenever proper pains and the necessary efforts have been exerted, that we cannot entertain the

(*a*) See Stanishurst's Description of Ireland, prefixed to Hollinghed's Chronicle. Camdeni Britannia. Fynes Moryson's Itinerary, P. iii. book iii. chap. 5.—(*b*) Sir W. Monson's Naval Tracts, book v. Atlas Maritimus et Commercialis, p. 113. An Essay on Trade in general, and on that of Ireland in particular.—(*c*) Sir William Petty's Political Anatomy of Ireland. Gee's Trade and Navigation of Great Britain considered, chap. xxviii. An Essay on the Trade and Improvement of Ireland, by A. D. Esq. Dublin, 1729, 8vo.—(*d*) See what has been before advanced upon this Subject, Political Survey of Great Britain, vol. i. p. 126, 127.

least suspicion of their desisting to pursue the same methods by which such fortunate changes have been already wrought, till they have attained the highest degree of perfection, more especially as every difficulty they have overcome, every advantage they have acquired, every great design they have accomplished, has not only served to shew them that improvements of all kinds are practicable; but also lessened the number of obstacles, and at the same time augmented the means of doing what is yet left to be done, with far less labour, than would have been necessary at the beginning (*e*).

BUT to come to the present point.

THE natural historian of Ireland has very justly observed, that few countries abound more with springs or running streams (*f*); for, exclusive of such brooks as have their sources on the sides of hills, or from fountains or plains, of which there are many, there are others that run out of bogs, and more that issue from lakes, which are not only very serviceable in domestic uses, and for all the purposes of husbandry, but are likewise so easily adapted to machines, that windmills are very rarely met with in this country. But in respect to the rivulets that roll down from the hills, they are more subject here, than in many other places, to overflow upon sudden rains, and to swell in a very short space of time, from very small rills, to deep and dangerous torrents (*g*). The rivers of Ireland are also very numerous, though there are not many of them that fall within the design of this chapter; for though there are several very considerable in point of size, not a few that run a pretty long course, and some capable of bearing boats of a good size many miles above their fall into the sea; yet it must be acknowledged, that rivers navigable in a sense with the Trent, the Severn, and the Thames, are not to be found in this island (*h*). It is not, however, impossible, that posterity may fall into some doubts as to this fact, if the spirit now prevailing should continue and act vigorously, since there is nothing hinders the large rivers in Ireland from being made navigable, in the most extensive sense; that labour, attention, and expence, may not remove. For some of these rivers, that through a great part of their passage are deep enough for that purpose, are so shallow in others, as in that respect to be useless; which having risen from the breaking down their banks to render them fordable for travellers, without being at the charge of bridges, may be easily restored by repairing and strengthening the banks, so as to confine the stream; building bridges where it is necessary (*i*). Weres, wears, or wiers, are another kind of artificial incumbrances, by

(*e*) See the authors that are referred to in the place last cited.—(*f*) Ireland's Natural History, by Doctor Gerard Boate, chap. vii.—(*g*) To this inconvenience, when the island was more thinly peopled, the bogs and lakes both might be in some measure owing.—(*h*) Atlas Maritimus et Commercialis, p. 26.—(*i*) Ireland's Natural History, by Doctor Gerard Boate, chap. vii.

which many of their rivers have been spoiled. These are very large stones fixed in a sloping direction cross the stream, either for the sake of catching of fish, or with a view to divert part of its waters into cuts that serve mills, both of which might be objects of some consequence, before the benefits arising from inland navigation came to be known, and which will certainly cease to be looked upon in that light, whenever those benefits come to be generally and thoroughly understood. The last is a natural impediment, and therefore not so easy to be dealt with. It arises from one or more rocks running cross the beds of their rivers, by which cataracts are formed, and a stop thereby put to their navigation (*k*); but even for these natural defects art has invented various remedies. In some cases they may be pierced, in others they may be blown up; and where neither of these methods are practicable, we know, from examples in many other countries, that the danger arising from them may be avoided by the help of machines (*l*). Some of their rivers are only subject to the first of these inconveniencies; others are not only spoiled by fords, but embarrassed by weirs; and there are some rivers that are subject to all three (*m*). There are, notwithstanding, several strong and deep enough to afford good ports at their mouths, and, by the assistance of the tide, to be navigable even by vessels of considerable burthen, for many miles into the country; and of these it is our business to enumerate the most remarkable, and to point out the advantages that are, or may be, derived from them.

THE first we shall mention, is that in the county of Cork, which Spenser has rendered immortal by his succinct and striking description (*n*). "The pleasant Bandon crown'd with many a wood." This river was anciently named Glasheen, and rises in the mountains of Carbery; passing by Dunmanway, it there receives a second branch, and runs easterly through a bog, having its channel divided, and then arrives at Inskeen. Before it reaches the town of Bandon, it flows through an elegant park; and then traversing that large and well-built town, and passing under the bridge, it winds north-east to Innishannon, where is also another stone bridge over it, and becomes navigable a little below the last-mentioned place. Hence it winds in several beautiful reaches south-east to Kinsale. In its progress it receives several streams on both sides; one of the most remarkable is that called Mugin, which rises in the parish of Knockavilly in Muskerry, and falls into the Bandon above Innishannon, at Lisabroder, dividing the baronies of Kilnalmeaky from Kerrycurrihy (*o*). The town of Kinsale, which owes its importance entirely to the fall of this

(*k*) By this the navigation of the Band and the Shannon are obstructed, to the inexpressible prejudice of the west side of the island.—(*l*) *Traite des Moyens de rendre les rivières navigables*, Paris 1693. 8vo. chap. v.—(*m*) *Ireland's Natural History*, by Doctor Gerard Boate, chap. viii. §. 7, 8.—(*n*) *Fairy Queen*, book iv. canto 11. stanza 44.—(*o*) Smith's ancient and present state of the county and city of Cork, vol. iii. p. 263, 264.

river, is of great antiquity, being incorporated by charter in the reign of King Edward the Third, which was renewed by Edward the Fourth; and in both, such privileges are bestowed, as in effect render it in some degree a republic, which, in the state that things then stood in Ireland, was necessary to its safety and subsistence (*p*). In the reign of Henry the Eighth they had a large standard, embroidered with the arms of England, bestowed upon them by that monarch. Towards the close of Queen Elizabeth's reign their charter was forfeited, on account of the Spaniards landing there; but after the reduction of the place it was restored (*q*). In the two succeeding reigns they received considerable marks of royal munificence. In the reign of King Charles the Second, the then Earl of Orrery, in 1670, began a regular fort, to which the Duke of Ormond gave the name of Charles Fort, the finishing of which cost upwards of seventy thousand pounds (*r*). It stands at some distance from the town, is a very neat and strong place, commanding the harbour in such a manner, that ships must pass within pistol shot, and having in it at all times, by way of garrison, a regiment of foot (*s*). The old fort on the other side of the river Bandon, upon the building of this, was turned into a block-house. The last charter granted to the town was by King James the Second (*t*). After the revolution, when King James II. came over from France into Ireland, he landed at this port, March 12, 1688 (*u*). But in the autumn, 1690, it was reduced by the Earl of Marlborough, who took the old fort by storm, the Irish governor being killed in the breach. Charles Fort afterwards surrendered, and the town fell of course, being not capable of much defence (*w*).

KINSALE is built under Compass Hill, and extends about an English mile. The situation is very singular, the chief street running as it were round the hill, with others above it, communicating by steep slippery lanes. The houses are built after the old manner, with large balcony windows, which in the upper part of the town afford them a very fine prospect. They have likewise very pleasant walks and outlets; and on the opposite shore there are two well-built villages, Cove and Scilly (*x*). In the town and liberties are six parishes, thirty-

(*p*) By this charter the burgesses were allowed to chuse their chief magistrate, who was to be stiled sovereign, to treat with and reform the rude Irish, as also to make war or peace with them, so as it was not prejudicial to the general interest of the kingdom. — (*q*) *Pacata Hibernia*, p. 232. Sir Richard Cox's history of Ireland, vol. i. p. 446. Smith's ancient and present state of the county and city of Cork, p. 223. — (*r*) H. R's letter to the author of the history of Ireland, p. 14, annexed to Cox's history. Morris's Life of R. Earl of Orrery, p. 45. Carte's Life of the Duke of Ormond, vol. ii. p. 472. — (*s*) See the article of Kinsale in Collier's Dictionary. Atlas Maritimus et Commercialis, p. 25. Military establishment in the kingdom of Ireland. — (*t*) This charter was dated February 25, in the fourth year of his reign, and registered May 4, 1688. Smith's ancient and present state of the county and city of Cork, vol. i. p. 226. — (*u*) Letter to the author of the History of Ireland, p. 20. *Memoires de la derniere revolution d'Angleterre*, tom. ii. p. 189. Pointer's Chronological Historian, vol. i. p. 389. — (*w*) Story's History of the war in Ireland, p. 144. Life of King William, p. 284, 285. — (*x*) Atlas Maritimus et Commercialis, p. 25.

plowlands, and therein six thousand eight hundred forty-six acres (*y*). The harbour is very commodious, and perfectly secure; so large, that the English and Dutch Smyrna fleets have anchored therein at the same time (*z*). There is a dock and yard for repairing ships of war, and a crane and gun-wharf for landing and shipping heavy artillery, with a hulk in time of war, for laying down and careening ships of great size, with the proper establishment of a royal yard, the more remarkable, as this is hitherto the only one in the island (*a*). In time of war it is exceedingly frequented, homeward and outward-bound East India and West India fleets often putting in here, as well as the largest squadrons of the royal navy. On this account it is provided in their leases, that the inhabitants shall pay double rent in such a season. As a place of trade it has a custom-house, with a proper provision of officers, and some rich merchants, who trade to France, Holland, Flanders, and most of the plantations in America; but lying in the neighbourhood of Cork, its commerce is very far from being considerable (*b*).

THE river Lee, stiled anciently Luvius, though Camden thinks it the Daurona of Ptolomy (*c*), rises out of a lake in the west of Muskery, called Gaugane Barra; and running with a small stream and gentle current by several high mountains, swelling gradually from the accession of many rills, at length expands itself in Lough Allua; and being much contracted at its exit from thence, runs very briskly to Inchigreelagh, where there is now a stone bridge over it (*d*). It may not be amiss to remark here, that this is a clear instance of one of the emendations that have been already proposed (*e*); for here there was anciently a ford by breaking down the banks of the river, and it was considered as a very strong pass; but now the bank is repaired, and the loss of the ford supplied by a good bridge, the river passing under five more before it arrives at Cork, where there are two bridges upon it. In its whole course it may run about twenty-six Irish miles: And as in this course it receives many rivulets, and some pretty large rivers, both

(*y*) Smith's ancient and present state of the county and city of Cork, p. 225. — (*z*) In July, A. D. 1673, forty East India company ships, and forty merchant-men, were there together. In 1677 Sir Jeremy Smith, with an English squadron of men of war. In 1691, the fleets mentioned in the text. — (*a*) This improvement is but modern, in consequence of repeated suggestions of its utility, and it is hoped will be considered as a precedent in time to come. — (*b*) Present state of Ireland, chap. vii. *Atlas Maritimus et Commercialis*, p. 25. Smith's ancient and present state of the county and city of Cork, vol. i. p. 223, 235. — (*c*) *Camdeni Hibernia*, p. 739. *Baxteri Glossarium Antiquitatum Britannicarum*, p. 99, 100. Smith's ancient and present state of the county and city of Cork, vol. ii. p. 153, 154. — (*d*) *Spencer's Fairy Queen*, book iv. canto 11. stanza 44. *Ireland's Natural History*, by Doctor Gerard Boate, chap. ii. §. 10. Present state of Ireland, chap. vii. — (*e*) The ancient inhabitants were not to be blamed for making fords, and establishing strong passes. These were right enough, upon their system, which considered the country merely as a theatre of war, which in a greater or less degree subsisted continually; but are utterly repugnant to notions we recommend of universal quiet, inland trade, and the cultivation of the whole island, under a mild and well regulated government.

from the north and south, it becomes a strong, and deep stream, which however is not navigable any higher than Cork, on account of the wears already mentioned, which are a prodigious detriment to this river, that might otherwise admit, for upwards of ten Irish miles, vessels of a pretty large size (*f*). But, in all probability, the time is not far distant, when the great importance of freeing their rivers from such incumbrances, will become equally a point of private oeconomy, and an object of public attention. The Lee being joined by the river Glanmire, a little below Cork, diffuses itself in such a manner as to form a spacious and most commodious haven, falling at length into the sea about fifteen miles below that city (*g*). The largest vessels come to a place called Passage, which is within six miles of the city, to which their cargoes are brought in barges that carry about thirty tons; but, notwithstanding this, vessels of considerable burthen may proceed to the city in great safety, and be delivered at the very quays (*h*).

CORK is an ancient and famous city, a bishop's see, a county town, a town and county of itself, a garrison, and a sea port. It was built, or to speak more precisely, was walled and fortified, by the Danes, in the ninth century (*i*). It stands, at least the greatest part of it, on a marshy island, surrounded by the river Lee, that also runs through the city, which is divided in several places by canals. Some have thought the air on this account very moist and unwholesome; and some have likewise complained of the water as none of the purest. But experience, and the comparison of the bills of mortality, shew, that in reality the city is far from being unhealthy, which, with much probability, is attributed to the influx of the tide, by which, the stagnation of the air is certainly prevented (*k*). The first charter of Cork was bestowed by King Henry the Third, ratified afterwards by King Edward the First, Edward the Second, and Edward the Third. Edward the Fourth granted a new charter; and the city received many favours from the succeeding monarchs. King James the First gave the citizens a new and ample charter; and King Charles the First, what is called the Great Charter, by which, among others, that clause in King James's charter is confirmed and enforced, by which it is made a county of itself (*l*). Though a garrison, it was

(*f*) Present state of Ireland, chap. vii. Atlas Maritimus et Commercialis, p. 25. Smith's ancient and present state of the county and city of Cork, vol. ii. p. 257.

—(*g*) When we consider how late the value of the ports in this island has been understood, we shall wonder the less at the neglect of their rivers. —(*h*) Natural History of Ireland, by Doctor Gerard Boate, chap. ii. §. 2. p. 23. —(*i*) Atlas Maritimus et Commercialis, p. 25. Present state of Ireland, chap. vii. —

(*j*) There is still, or was within these few years, an ancient steeple standing in the churchyard of the cathedral, supposed to be built by the Oostmen or Danes of Cork, and to have served originally as a watch-tower. See the ingenious Mr. Harris's edition of Sir James Ware's works, vol. i. p. 555. —(*k*) Doctor Rogers's essay on the diseases of Cork, p. 36, 37. Smith's ancient and present state of the county and city of Cork, vol. i. p. 376, 377. —(*l*) The first charter of this city being granted A. D. 1242, it appears that this corporation is upwards of five hundred years standing.

never a place of much strength, at appeared at the revolution, when, after a short dispute, it was reduced by the Earl of Marlborough, and the troops that were then in it, to the number of between four and five thousand men, made prisoners of war (*m*). The last royal charter was granted in 1735, by which all the aldermen who had passed the chair, were impowered to act as justices of the peace (*n*). In the reign of Queen Elizabeth, it was not only inferior to Dublin, but also to Waterford and Limerick (*o*); whereas it is now indisputably the second city in the kingdom, being enlarged two thirds within these last fifty years. According to a moderate computation, the number of its present inhabitants is about sixty thousand (*p*). Besides a stately cathedral, built from the foundation, between 1725 and 1735, by the produce of a duty upon coals, it is adorned with many handsome parish churches. It has also an elegant exchange for the merchants, a new and beautiful custom-house, a town-hall, several fine hospitals, and various other public structures (*q*). The city possesses an annual revenue of about thirteen hundred pounds, out of which the mayor enjoys for his salary and the support of his dignity, about five hundred. The inhabitants in general are active and industrious; they have various manufactures, and a great inland trade, more especially for live cattle, as clearly appears from that branch of the city revenue which is called gateage, every beast that enters the gates paying no more than one penny per head, and which amounts nevertheless, one year with another, to six hundred pounds (*r*). Cork differs from Kinsale in this, that it suffers remarkably in a time of war, and is continually improving in a time of peace; notwithstanding that it is sometimes exposed, among other lesser inconveniencies arising from its situation, to considerable losses by inundations (*s*).

THE wealth and grandeur of Cork arise from its capacious and commodious haven, where almost any number of ships may lie with ease and safety (*t*). According to some accounts, when there has been no war, twelve hundred vessels have resorted hither in a year. Ships from England, bound to all parts of the West Indies, take in here a great part of their provisions; and on the same account the haven of Cork is visited by those also of

(*m*) In the month of September, 1690, as appears by Sir Richard Cox's MS. Narration, cited by Mr. Smith in his History of Cork, vol. ii. p. 204.—(*n*) Present State of Ireland.—(*o*) Camdeni Hibernia, p. 739. Stanishurst de rebus Hibernicis, cap. iii. Description of Ireland prefixed to Hollingshed's History, vol. i. p. 25.—(*p*) As I have been informed by persons who took great pains to inquire, and which corresponds also with Mr. Smith's account.—(*q*) Ancient and present State of the County and City of Cork, vol. i. p. 401, 429.—(*r*) This shews the utility of small taxes discreetly imposed, which serve at once to raise a revenue, and to furnish a political register.—(*s*) The last, and the highest that has happened in the memory of man, was on January 28 and 29, 1750.—(*t*) Smith's ancient and present State of the County and City of Cork, vol. ii. p. 285, 287.

most other nations (*u*). The slaughtering season continues from the month of August to the latter end of January, in which space it has been computed, that they kill and cure seldom fewer than one hundred thousand head of black cattle (*v*). The rest of their exports consist of butter, candles, hides raw and tanned, linen cloth, pork, calves, lambs, and rabbit-skin, tallow, wool for England, linnen and woollen yarn, and worsted, the whole to a very large amount (*x*). The merchants of Cork carry on a very extensive trade to almost all parts of the known world, are very industrious and expert, so that their commerce is annually increasing (*y*). The produce of the customs, some years since, exceeded sixty thousand pounds, and the number of ships that they employ, is very near double to what it was five-and-twenty years past (*z*). The only thing that seemed to be wanting to the security of the port of Cork, was supplied in the Earl of Chesterfield's memorable administration, by building a fort on the great island to command the entrance of the haven.

THE head of the Black or Broadwater, called by the natives Avonmore, and, notwithstanding Camden's opinion, most probably Ptolemy's Daurona (*a*), is in a swampy bog, near Castle Island in Kerry, from whence it runs to Blackwater Bridge, being still but a small stream; proceeding forward about six miles farther to Cullin, thence to Ballydawly, Drishane, and so easterly to Mallow, where there is a fair stone bridge over it, and then rolls forward to Fermoy, where it has a second bridge; and thus pursuing a course due easterly till it enters the county of Waterford; passing by Lismore, at present only a pleasant village, formerly a great city, adorned not only with an university, but a cathedral also, and twenty other churches, of which there are scarce now so much as the ruins (*b*). Thence having run in the whole near fifty miles due east, it comes to Cappoquin, a pleasant and very thriving town, where there is a bridge over it; and there making an angle, it turns to the south, proceeding in a pretty straight course ten miles farther, till it falls into the sea at Youghall (*c*). The Blackwater is now navigable no higher than Cappoquin, by vessels of any tolerable burthen; but we learn from the writings of a noble author, that it was formerly navigable, at least by boats of an ordinary size, as high as Mallow (*d*), which is forty miles from its mouth. The bed

(*u*) *Atlas Maritimus et Commercialis*, p. 25. *Essay on the Trade and Improvement of Ireland*, p. 19. *Present State of Ireland*.—(*v*) *Smith's ancient and present State of the County and City of Cork*, vol. i. p. 411.—(*x*) As appears from Extracts made from their Custom-House Books for many years.—(*y*) *Present State of Ireland*.—(*z*) As I have collected from informations that may be depended upon.—(*a*) *Claudii Ptolemæi Geograph. lib. viii. cap. 2.* *Camdeni Hibern. p. 739.* *Baxteri Glossarium Antiquitatum Britannicarum*, p. 99.—(*b*) *Usseri Antiquitat. Britan. p. 471.* *Camdeni Hibernia*, p. 740. *Sir James Ware's Works*, vol. i. p. 547.—(*c*) *Smith's Natural and Civil History of Waterford*, p. 58. *Spenser's Fairy Queen*, book iv. canto 11. stanza 42. *Ireland's Natural History*, chap. viii. §. 2.—(*d*) *Earl of Orrery's Letters*, p. 134.

the river, it seems, has risen so, that it overflows and spoils great quantities of meadow land on both sides (*e*); there are besides salmon weirs, and other impediments, but none which might not be removed, and the river restored to its former utility, with a very reasonable proportion of labour and expence; which, considering how much things are changed in that country, and how beneficial this would be to the landholders and inhabitants in general, we have just grounds very speedily to expect (*f*).

Youghall was incorporated by King Edward the Fourth, and invested with great privileges, which were confirmed and augmented by succeeding monarchs; notwithstanding which it would probably have sunk into decay, if the first and great Earl of Cork, to whom the province of Munster in general, and this county in particular, owe so many obligations, had not interposed, preserved, and restored it (*g*). At present it is about a mile in length, situated on the side of a hill, the lower part of which is laid out into pleasant gardens. Towards the sea the town is defended by a small fort, with a mole for the security of shipping, and a quay to load and discharge goods, an exchange and custom-house at a small distance (*h*). The inhabitants have a tolerable inland trade; and a manufacture of earthen-ware, lately set up, in a thriving condition (*i*). There is a bar at the entrance of the port, which makes it difficult, and sometimes dangerous; but ships, when they are once in, lie very safely, and it is equally convenient and capacious (*k*). With these advantages, and that of a navigable river, capable of many improvements, it has been wondered that Youghall, so much the care of the wise and provident nobleman before-mentioned, who, understood situations the best of any man of his age, has not made a much greater figure, more especially as in distant times it was a kind of rival to Cork (*l*). But the growth of that city very possibly occasioned the decay of this place, which is however, at present reviving, and its commerce has increased pretty considerably within these few years; and, in all probability, when manufactures are set up in the towns upon the Blackwater, which will of course bring the country more into cultivation, this town and port will feel the good effects

(*e*) Smith's Natural and Civil History of Waterford, p. 236.—(*f*) There is hardly any country so improveable as Ireland, where improvements are more easily made, or where so few attempts to improve have miscarried.—(*g*) The Charter of Incorporation, granted at the request of Thomas Earl of Desmond, bore date A. D. 1462.—(*h*) Atlas Maritimus et Commercialis, p. 25. Present State of Ireland. Smith's ancient and present State of the County and City of Cork, vol. i. p. 126.—(*i*) It is surprizing that more manufactures of this kind are not set up, since there is scarce a county which does not abound with earths of different kinds, exceedingly fit for potteries of every sort.—(*k*) Ireland's Natural History, by Dr. Gerard Boate, chap. iii. §. 6. Smith's ancient and present State of the County and City of Cork, vol. ii. p. 284.—(*l*) Camden's Britannia, p. 739. Moryson's Itiner. p. iii. p. 157. Ireland's Natural History, chap. iii. §. 6.

of them, since to balance the difficulty in its entrance; outward-bound ships are no sooner under sail than they find themselves in the open sea, and at liberty to prosecute their voyage with the same wind (*m*). It may not be amiss to observe here, that in the gardens belonging to this place, the potatoe was first planted (*n*). This improvement is ascribed to Sir Walter Raleigh with much probability, for this was a part of that estate which he sold to the Earl of Cork (*o*). It seems, however, that no proper instructions were given to the person who cultivated it, since, upon its coming up and growing pretty high, he attempted to eat the apple, which he took to be the fruit of the plant. But finding it unpleasant, considered his pains as lost, and utterly neglected it. At some distance of time, when they came to turn up the earth, they found the roots spread to a great distance, and increased into great quantities; and from hence the whole kingdom was gradually furnished (*p*).

THESE three rivers are all in the county of Cork, and province of Munster, running in a manner parallel to each other; the Bandon river about seven miles south from the Lee, and the Blackwater fourteen miles to the north of that river (*q*). Into each of these fall several streams that might be made navigable, at least for middle-sized boats; and from hence the intelligent reader will easily conceive how much they may contribute to render the country fertile, and to facilitate all kinds of cultivation. In consequence of this, if manufactures were introduced into the towns that stand on the sides of these rivers, where labour might be as reasonable, and yet the people live as well as in any country in Europe, there is nothing could hinder their becoming extremely populous; and, through the advantages resulting from an easy and cheap communication with each other, their goods come on the lowest terms to market (*r*). We may with the more probability expect this, from the conveniency of three such ports as lie at the mouths of these rivers, more especially when we reflect that, notwithstanding

(*m*) This facility of putting to sea is of prodigious consequence to a harbour in which ships of all nations resort chiefly for provisions.—(*n*) Smith's ancient and present State of the County and City of Cork, vol. i. p. 128. Ben Johnson in the second act of Every Man out of his Humour, mentions potatoes as but lately introduced. — Houghton's Collections for the Improvement of Husbandry and Trade, vol. ii. p. 468.—(*o*) Moryson's Itinerary, P. ii. p. 5. Eudgell's Memoirs of the Family of the Boyles, p. 13, 18, 19. Oldys's Life of Sir Walter Raleigh, p. 147.—(*p*) Authors differ exceedingly as to the nature and the country from whence potatoes came. Mr. Switzer calls it *Sisamum Peruvianum*, i. e. the Skirret of Peru. Doctor Hill affirms, in his History of Plants, that it is a *Solanum*; and a gentleman of great knowledge, learning, and candour, for whose opinion I have the highest deference, thinks it a native of Mexico.—(*q*) The judicious reader, by casting his eye on the large map of Ireland, or any particular map of the province of Munster, or county of Cork, will see this in a stronger light than words can place it.—(*r*) Seasonable Remarks on Trade, with some Reflections on the Advantages that might accrue to Great Britain, by a proper Regulation of the Trade of Ireland, p. 24.

the little care taken of the inland navigation, the commerce of those ports is surprisngly increased, the very smallest of them having, at this time, many more seafaring people than were in them all taken together, a little after the revolution (*s*); when, whoever had predicted that Cork in half a century would have been, what in that space it really became, must have been slighted as a politician, and laughed at as a prophet.

IN order to explain this matter more clearly, we will proceed into the next county, that of Waterford, where there is a port, which formerly lay under the imputation of being very unsafe, and has indeed a rocky entrance; but as pilots are always to be had at the mouth of it, accidents very seldom happen in the present times (*t*). This port, which is called Dungarvan bay, is of a tolerable extent; and the town was an ancient corporation (*u*). Into this bay there run two rivers, the Colligan on the north, and the Bricky on the south. The latter, except when swelled by rains, is but a small stream, and yet becomes navigable at spring tides (*w*). The Phinisk, which falls into the Blackwater, is a more considerable river; and its course might be directed so as to make it fall into the Bricky, which would not only render this last river navigable for several miles, and almost as high as the Blackwater, but also, by its bringing a much greater body of water into the bay, exceedingly help the port of Dungarvan, which in other respects, is very well situated for fishing more especially; and the inhabitants are already so dexterous in catching and curing hake, which sell as well, and better than cod, at the Spanish market, that such an additional advantage would be of the utmost consequence (*x*). It appears then, that a project of this sort, prudently undertaken, purely from public spirit, prosecuted indefatigably upon that plan, and without glancing at any private or particular interest, and which might be executed in a short time with little trouble, and at a small expence, would supply the country with another navigable river, improve the port, and be of great service to the town (*y*); which is only one instance, out of many, that might be given of the

(*s*) In the philosophical transactions of the Royal Society, No. cclxi. we have an exact list of all the seafaring men, including fishermen, boatmen, lightermen, &c. in the kingdom of Ireland, taken by Captain South in 1697; according to which there were in Cork one hundred eighty-three; in Kinsale, two hundred twenty-five; and in Youghall, two hundred. In the three, six hundred and eight.—(*t*) Stanihurst's Description of Ireland, chap. iii. Ireland's Natural History, by Doctor Gerard Boate, chap. iii. §. 6.—(*u*) It was incorporated by an Act of Parliament A. D. 1463, and declared to be one of the ancientest Honours belonging to the Crown of England in Ireland.—(*w*) See the map of the county of Waterford, prefixed to Smith's History of that county.—(*x*) The Hake is a large Fish, which is very much esteemed, when properly dried. It seems to resemble a Haddock, in the same manner as a Cod does a Whiting.—(*y*) Ireland's Natural History, chap. iii. §. 6. Present State of Ireland, chap. vii. Smith's ancient and present State of the county and City of Waterford, chap. x. p. 257.

great benefits that art may add, to those already bestowed by nature, upon this island (z).

THE river Suir, or, as it is sometimes spelt, Shure, or Showr, rises at the foot of Banduff mountains, in the county of Tipperary, where also rises the Nore; but they quickly part; and the Suir taking a south-west course, comes to Clonecanny (a); thence proceeding due south, it passes through Thurles; and being now grown a considerable, and very beautiful stream, there is a good stone bridge over its waters. From Thurles it rolls on to Holy Cross, where there is another bridge, and a fourth a little farther, called Golden Bridge (b). About ten miles beyond this, at a place called Ardfinane, there is a fifth, and yet more stately bridge, consisting of several arches. A little beyond Ardfinane, the river begins to turn east, separating thenceforward the two counties of Waterford and Tipperary; and having received the river Nyre, or Nier, it winds north-east to the pleasant, and now thriving place, that Spenser justly celebrated by the name of sweet Clonmell (c). After a progress of eight miles more, it comes to Carrick, having very handsome bridges over it at both places. Towards the north end of this last-mentioned town there are several rocks, or, as some conceive, the remains of an old bridge, being navigable from hence to Waterford, which lies lower, at the distance of about ten or twelve miles (d).

THE Barrow, which is probably the Birgus of Ptolemy, is a noble river, and of a very long course. It rises in the King's County; and running for a short space north-east, makes a kind of elbow; and continuing afterwards a south-east course, divides the King's and Queen's counties from that of Kildare (e). Proceeding next through the heart of the county of Cathelagh, it afterward separates the counties of Kilkenny and Wexford: Till a little before it reaches the town of Ross, it receives the river Nore before-mentioned, which is sometimes written Our; and then varying its course somewhat to the west, mingles its waters with those of the Suir, in making the right arm of Waterford Haven (f), from thence deservedly esteemed one of the finest in this island, and which indeed has so many ad-

(z) The design of this work is to shew, that as there are many natural advantages unemployed, so new conveniencies in regard to commerce might be, without difficulty, almost every-where contrived for the speedy transportation of the produce of this fertile country, were it ever so populous, or ever so highly improved.—(a) Camdeni Hibernia, p. 740. Ireland's Natural History, chap. ii. §. 1. p. 10, 11. Present State of Ireland, chap. vii.—(b) Smith's ancient and present State of the County and City of Waterford, chap. viii. p. 233.—(c) Fairy Queen, book iv. cant. 11. stan. 43.—(d) Camdeni Hibernia, p. 740. Moryson's Itinerary, P. iii. book 3. chap. v. p. 157. Present State of Ireland, chap. vii.—(e) Camdeni Hibernia, p. 744. Spenser's Fairy Queen. Baxteri Glossarium Antiquitatum Britannicarum, p. 41.—(f) Ireland's Natural History, chap. ii. §. 1. Atlas Maritimus et Commercialis, p. 25. Present State of Ireland, chap. vii.

vantages, that it might alone serve to support the commerce of a large province, or of a small kingdom.

THE town of Carrick is remarkable for its inhabitants having carried one branch of the woollen manufactory, that of ratteens, to the highest degree of perfection, of which manufacture there is a vast consumption in the kingdom; and, if the laws would permit, their ratteens might be also exported in great quantities (*g*). The country round about is chiefly turned to grazing, which furnishes a large inland trade to Waterford, which, by the assistance of the Suir, the Barrow, and the Nore, receives by water-carriage the commodities of no less than seven counties. This is a very ancient, strong, and famous city, a bishop's see, a town and county of itself, in which are, besides a cathedral, seven parish churches, a very handsome guildhall, an exchange for merchants, a custom-house, many other public buildings, daily improving, well situated, and, though exposed to the north and east, is, from experience, known to be very healthy (*h*). The commerce of Waterford is also very flourishing, more especially to Newfoundland, and to Great Britain; and, according to the best lights I am able to obtain, it is clearly the third port in the kingdom, though, in point of buildings, and number of people, Limerick is esteemed the third city. There are very profitable salt-works here, as also a large quantity of wood prepared for dyers, and there was, if there be not still, a flourishing manufacture of frizes (*i*). But if the country about it were brought more into tillage; new manufactures, for which they have the materials at hand, were set up; and the fishery, for which it stands very conveniently, properly improved; it would soon become much more considerable than it is.

THE town of Ross, or, as it is commonly called, the town of new Ross, in the county of Wexford, upon the river Barrow, is a very rich and thriving place, with a great inland trade, and some commerce, being a sea port exempt from the jurisdiction of Waterford, and having vessels of pretty large burthen coming up to the very quay (*k*). Thus it appears that the haven of Waterford has been, as we before observed, very justly celebrated, as enjoying several, and very singular advantages, no fewer than three navigable rivers, called by the old Irish, the three Sisters, from their rising out of the same ridge of mountains, after straying through different counties,

(*g*) Dictionnaire universelle de Commerce, tom. iii. col. 421. Essay on the trade of Ireland, p. 35. Smith's ancient and present State of the county and city of Waterford, chap. xii. p. 281.—(*h*) See the Article of Waterford in Colmer's Dictionary. Atlas Maritimus et Commercialis, p. 25. Present State of Ireland, chap. vii.—(*i*) Ireland's Natural History, chap. i. § 6 p. 8. Smith's ancient and present State of the county and city of Waterford, chap. vi. Essay on the trade of Ireland.—(*k*) Camdeni Britannia, p. 748. Ireland's Natural History, chap. ii. §. 3. p. 2. Present State of Ireland, chap. vi.

at length fall into it; and from Cheek point to the sea there is a vast body of water, which from its shape obtained the name of Porthlargi, in the language of the natives, i. e. the port of the Thigh, being at least nine miles long, and very secure, covered by Duncannon Fort, seated on an eminence in the county of Wexford (*l*), which commands all vessels that pass upwards, and having fifty-four feet water in the midst of the channel, though this is the narrowest part of the harbour, with good anchorage, as indeed there is all the way up to Cheek point; and from thence in the left-hand channel, up the Suir, to Waterford, there is not less; and at the very quay vessels of five hundred ton burthen may load and unload; and a little to the east, erected within these few years, there is an excellent dry dock, with great conveniencies (*m*).

THE river Slane, or Slainy, rises in the south-west extremity of the county of Wicklow (*n*); and proceeding in a winding course, sometimes turning south-east, sometimes to the south-west, passes on through the county of Catherlogh, and then, in a south-east direction, divides the county of Wexford, till, with a full and swelling stream, it reaches Eniscorthy, a very large, thriving, populous borough; from whence, rolling many miles smoothly in a south course, at length it makes an elbow, and then running directly east, falls into a bay of the sea a little below the town of Wexford, which stands on the south bank of this river (*o*). Wexford, called also Weisford, and Washford, is supposed by Camden to be the Menapia of Ptolomy (*p*), as the river Slane is held to be the Menada, or Modonus, of the same author. It is more certain that this was the first town of which the English took possession; and being strong by nature, was also, for their own security, according to the manner of those times, very well fortified by art, which put it out of the power of the Irish, excellent at incursions, but unused to sieges, ever to recover it. On this account also it was endowed by many of our monarchs with very extensive privileges, made a place of arms, and considered, for some time, as the chief seat of government in this island; of which we the rather take notice, because it accounts for the great improvements made in this county, and its being extremely well peopled by the English. We find it commended in some old writers as a large and convenient haven (*q*),

(*l*) Moryson's Itinerary, P. iii. b. 3. cap. 157. Spencer's Fairy Queen, as before cited. See the article Waterford in Collier's Dictionary:—(*m*) Atlas Maritimus et Commercialis, p. 25. Smith's ancient and present State of the county and city of Waterford, chap. x. p. 249—253. Present State of Ireland, chap. vii.—(*n*) Spencer's Fairy Queen, book iv. canto 2. stanza 41. Ireland's Natural History, chap. viii. §. 2. p. 63. Present State of Ireland, chap. iv. §. 2.—(*o*) Moryson's Itinerary. P. iii. b. 3. cap. 5. See the article of Wexford in Collier's Dictionary. Atlas Maritimus et Commercialis, p. 25.—(*p*) Claud. Ptolemæi Geograph. lib. viii. cap. 2. Camdeni Hibernia, p. 748. Baxteri Glossarium Antiquitatum Britannicarum, p. 179.—(*q*) Robert Fitz-Stephen, Governor of Cardigan Castle, sent by Griffin, Prince of Wales, to the assistance of Dermot, King of Leinster, took the city of Wexford, as it was then called, A. D. 1168.

which in reality, it could never be otherwise than for vessels drawing ten, or at most twelve feet water, was besides encumbered with many sands, and a bar at its entrance; though within these there is tolerable anchorage for small vessels. It is still a place of note, has a considerable share of inland and coasting trade, and some commerce; and might perhaps have more, if the spacious and commodious haven of Waterford was not so very near it (*r*).

THE river Liffy rises about ten miles south-west from the city of Dublin, and about fifteen west from the sea: And while a small stream wanders, for some miles, south-west, thro' the county of Wicklow, then running directly west, it enters the county of Kildare, where it again forms an elbow, and runs away north-west, and at length due north, being then parallel to the sea, and near thirty miles distant (*s*). After this bending north-east, it pursues its course through a pleasant country till it enters the county of Dublin, where it runs for a little way almost due north; and then turning to the east, proceeds with a full stream, and with a pretty strong current, to that city, through which, though navigable but a very little higher, it passes with a full body of water under several very large and fine bridges, and falls into the bay of Dublin, at a place, called Ringsend, now in a manner annexed to it, though formerly a full mile below the city, after running in the whole about fifty miles (*t*).

THE city of Dublin is certainly very ancient, since we find it mentioned in Ptolomy by the name of Eblana, which very probably he wrote Deblana (*u*). The Irish call it, in their own language, Balacleigh, that is, the town founded upon hurdles, or, as we express it, upon piles. It is said to have been in the hands of the English so early as the days of King Edgar; but we know, with more certainty, that it was long after in the possession of the Danes, or of the Ostmen or Oostmen, a northern nation, who introduced fortifications and trade into this country, finding the former necessary to secure the wealth acquired by the latter (*w*). They certainly made choice of, and esteemed it, for the sake of its port, which was a very good one for any vessels then in use; and for this reason, and because it was but sixty miles distance from the coast of Wales, it came to be preferred by the English, when this part of Ireland was reduced under their power. It

(*r*) Ireland's Natural History, chap. iii. §. 1. p. 25. Atlas Maritimus et Commercialis, p. 21. Essay on the trade of Ireland. — (*s*) This river is called by Giraldus Cambrensis, Avon Liff. Camden will have it the Libnius of Ptolomy, placed by the error of transcribers on the other side of the island. It is more probable, however, that the Libnius of Ptolomy is Sligo bay. — (*t*) Spencer's Fairy Queen, as before cited. Camdeni Hibernia, p. 750. Ireland's Natural History, chap. viii. §. 3. — (*u*) Claud. Ptolemai Geograph. lib. viii. cap. 2. Baxteri Glossarium Antiquitatum Britannicarum, p. 100. Sir James Ware's works, vol. ii. p. 39. — (*w*) Girald. Cambrenf. Topograph. Hibern. dist. iii. cap. 43. Usserii Syllog. Epist. Hibern. p. 163. O Flaherty Ogygia, P. 1. p. 41.

has gradually therefore, under the auspice of several princes, acquired almost all the advantages of which any city can boast. It is supposed to have been a bishop's see in the fifth century; the first Archbishop was Gregory, in the year 1152; and the bishoprick of Glendalech was annexed to it in 1214, when Henry de Loundres, or Henry of London, was archbishop (x). It has at present a cathedral and a collegiate church, St. Patrick's, and Christ's Church. The same archbishop Henry made it also a place of strength, by building the castle; and it still remains the centre of the British force in this country, by the addition of barracks. An university was erected therein by the authority of the Pope in 1320; but that not taking effect, Queen Elizabeth, in 1591, founded and endowed Trinity-College, which has produced many eminent men, and been regarded as an university ever since (y). It is the seat of government, the Lord Lieutenant, Lord Deputy, or Lords Justices, residing here; here also the sovereign courts of law and equity, and the records of the kingdom are kept; and here likewise the parliament is held (z). As a city, or corporation, its chief magistrate is stiled Lord Mayor, and wears a collar of SS, both bestowed by King Charles the Second. Succeeding monarchs have confirmed these favours, and most extensive privileges have been granted to the citizens, their liberties also, or corporate jurisdiction, being very large. Besides all this, Dublin may be considered as the centre of the inland trade, and is, beyond question, the place of the amplest foreign commerce in the island (a). For the accommodation of merchants they have a Tholsel or Exchange, a Custom-House for the receipt of the revenue, and commissioners for the management of it. As to the increase of this city, the first in Ireland, and the second in the British dominions, it has been undoubtedly of late years very great. But as a very ingenious, and which is of much more consequence, a very well informed writer, has very clearly and fully proved (b), it is extremely difficult to fix, with any degree of certainty, the present number of its inhabitants, and that chiefly from the difference in their religion, and some other circumstances, which render the registers of births and burials no conclusive evidence. But, notwithstanding this, we may venture to assert without any danger of offending truth, that in seventy years, that is, from 1682 to 1752, the number of houses hath completely doubled,

(x) *Camdeni Hibernia*, p. 751. *Harris's History of Bishops*, p. 299. See the article Dublin in *Collier's Dictionary*. — (y) *Liber MS. Baronis Houth, Moryson's Itinerary*, P. iii. b. 3. cap. 5. p. 158. *Harris's History of Bishops*, p. 299. — (z) *Ireland's Natural History*, chap. i. §. 6. *Atlas Maritimus et Commercialis*, p. 22. *Present state of Ireland*, chap. ix. — (a) This shews, that as a commodious harbour may be long neglected, so a port, less happy in situation, may, by constant attention, strong efforts, and a concurrence of fortunate circumstances, be brought into use, and, by degrees, all its natural inconveniencies be either corrected by skill, or avoided by care. — (b) An essay on the trade and improvement of Ireland, by Arthur Dobbs, Esq; P. ii. p. 9.

and with it the number of people likewise (*c*); though that is not always the case, as the augmentation of houses sometimes serves only to lodge the same, or even a less number of inhabitants, more commodiously.

As to the harbour of Dublin it is but indifferent, since vessels of considerable burthen, and that draw a great depth of water, have come into use. For all along this coast, from Wexford, there lie shoals of sand, divided into the south, middle, and north grounds; and at the mouth of Dublin Harbour there is a bar, occasioned by two banks of sand, called the South and North Bulls, stretching from the opposite sides of the haven, upon which, at high water, there is not above seventeen feet, and at low, there is no going over it: Besides, when the tide is out, except in two places, ships lie dry (*d*). Great pains, and much money, have been employed in streightening the channel, in order to remove these inconveniencies, but hitherto not with those effects which were hoped. Without the bar indeed, in Dublin Bay, there are tolerable good roads on both sides; and the ladings of large ships are very conveniently carried up to the city by lighters and other craft, small vessels proceeding to the very quay. With all these impediments, and in spite of all these obstructions, the merchants of Dublin extend their correspondence daily; so that if we were to assert one half of the foreign commerce of Ireland is carried on at this port, we should not be much in the wrong (*e*). But, whenever those new and noble works shall be executed, which are now under consideration, there is very little reason to doubt that it will be hereafter greatly increased, and then probably, by new methods, and larger disbursements, perhaps by making docks, as at Liverpool, the port may be much further improved (*f*); which is the rather to be expected from that spirit the nation has shewn, for some years past, in promoting every work of public utility with such steadiness, prudence, and vigour, as, sooner or later, must intitle them to success.

IN the King's County rises the river Boyne, the Bovinda, or Buvinda, of Ptolemy, and the Boandus of a later writer (*g*). It is quickly joined by so many rivulets, that, running on north-east, it becomes a very considerable river in its passage through

(*c*) According to an authentic account, taken in the first of these periods, there were somewhat more than six; and, according to a like account, taken in the last, considerably more than twelve thousand houses. It is also to be considered, that from experience there are known to be ten, if not twelve persons, under every roof in Dublin.—(*d*) Ireland's Natural History, chap. iii. §. 2. Atlas Maritimus et Commercialis, p. 22. Cutler's Coasting Pilot, p. 21.—(*e*) As I collect from several extracts from the custom-house books, and other authentic vouchers.—(*f*) Whatever can be done of this nature is a vast acquisition to any country; and the situation of this city deserves any expence it may require.—(*g*) Claud Ptolem. Geograph. lib. viii. cap. 2. Girald. Cambren. Topograph. Hibern. distinct. i. cap. 6. Camdeni Hibern. p. 753.

the county of Kildare, and still stronger in its course, and more beautiful in its appearance, when it enters the rich county of East Meath, where it waters Trim, the county town, a neat and populous place, and then passes on to Navan and Slane, both good towns (*h*). From the latter of these, pursuing an east course for about seven miles, it reaches Drogheda, which it divides, and falls into the sea about two miles below it. The Boyne is not only a river of long course, and navigable a considerable way up into the country, but is also of such a depth, and has so strong a body of water, that, with very small assistance, it might be rendered much more useful than it is, more especially if we consider how fine a territory it runs through, and what a number of good towns are upon, or very near it (*i*). The Boyne will be ever famous for the decisive battle, July 1, 1690, when it was passed by King William, and the army of King James being routed on the other side, retired precipitately to Dublin (*k*).

THE town of Drogheda, called by the English Tredah, was formerly very remarkable for its situation and strength. In consequence of this, its inhabitants had great favours bestowed upon them by our old monarchs; for instance, Edward the Second, at the request of Theobald Vernon, granted them a market and a fair: Other great privileges were added to these in succeeding times, particularly the right of coinage (*l*). It is at this time a town and county, sending as such two representatives to parliament. But being taken by storm September 10, 1649, by Oliver Cromwell, it suffered so much, the buildings being exceedingly shattered, and not only the garrison, with their worthy governor, Sir Arthur Aston, but the inhabitants, men, women, and children, put to the sword, that for a long time it remained almost in ruins (*m*). By degrees, however, it has recovered, and is at present a large and populous place, and, besides a great share of inland trade, has an advantageous commerce with England; and though the port be but indifferent, narrow at its entrance, and with a bar, over which ships of burthen cannot pass, but at high water, yet there are some rich merchants here, and a great deal of business done; so that from a low and declining port it is now become rich and thriving, more especially within these ten or twelve years (*n*). This is

(*h*) Ireland's Natural History, chap. viii. §. 3. p. 65. Atlas Maritimus et Commercialis, p. 22. Present State of Ireland, chap. vi.—(*i*) Moryson's Itinerary, P. iii. b. 3. chap. 5. p. 158. Essay on the Trade of Ireland. Additions to the English Translation of Camden's Britannia.—(*k*) See the Article Boyne in Collier's Dictionary. Life of King William, p. 269, 273. Pointer's Chronological Historian, vol. i. p. 377.—(*l*) Camdeni Hibernia, p. 762. Ireland's Natural History, chap. iii. §. 3. p. 25. Spencer's View of the State of Ireland.—(*m*) The History of the execrable Irish Rebellion, London, 1680, p. 223. The History of the Civil Wars in Great Britain and Ireland, p. 297. Earl of Clarendon's Historical View of the Affairs of Ireland, p. 131.—(*n*) Atlas Maritimus et Commercialis, p. 22. Additions to the English Edition of Camden. Present State of Ireland, chap. viii.

one of the strongest instances that can be perhaps mentioned of the inestimable benefit of a river, navigable in any degree; for though the Boyne is not capable of carrying vessels bigger than barges, or pretty large boats, yet the conveniency that this affords of conveying coals, by water-carriage, through a great extent of country, introduced a correspondence between this place, and Whitehaven, in Cumberland, to which the revival of its commerce has been in a great measure owing; so that from being poor, and in ruins, there are not now above seven or eight larger towns in this island (*o*). But it does by no means follow, that if, through the discovery of coals in Ireland, the intercourse between this place and Whitehaven should lessen, or even entirely cease, that the commerce of Drogheda must decay. Because this being once established, naturally attracts inland trade, excites manufactures, and produces an active, industrious, and enterprising, kind of people, who will always find resources, but who would never have found them here, if the advantages arising from their river had not shewed them the way (*p*).

NEWRY River, or, as they commonly call it in this country, the Water of Newry, in the county of Down, and province of Ulster, promised, and for many ages performed as little, as any stream in Ireland. It is not considerable from the length of its course, there being but a very small number of miles from its source to its fall. It is less considerable in point of size; and, with respect to its body of water, we might plead authority for calling it a brook, since it was navigable only in consequence of the tide flowing up, and of consequence so long, and so far, as it flowed (*q*). It rises not far from Rathfryland, in the barony of Upper Iveagh, taking first a western course, then bending to the north, runs under Glenny Bridge, Crown Bridge, and Sheep Bridge; north of which it again takes a winding course to the south, and soon after runs due south into Carlingford Bay (*r*). It is the new canal, the first fruits of the intended improvements of their inland navigation, which by joining this river to the Upper Ban, and thereby opening a communication with Lough Neagh, by which vessels of fifty and sixty tons pass through the heart of Ulster, that has taken away the impediments which were irremediable in the Newry River, and thereby afforded a direct instance of the truth of what has been so often laid down, that by a junction of locks and rivers, through the interposition of canals, this country may, at a small expence, be rendered, in this respect, as com-

(*o*) Essay on the Trade and Improvement of Ireland, P. ii. p. 6; and from calculations made A. D. 1753.—(*p*) While the river remains it will always furnish new resources, either in manufactures, or the transport of foreign commodities.

—(*q*) Camdeni Hibernia, p. 766. Ireland's Natural History, chap. iii. §. 2. Atlas Maritimus et Commercialis, p. 23.—(*r*) Cutler's Coasting Pilot, p. 21. History of the County of Downe, chap. vii. p. 144. Present State of Ireland.

modious as any in the world; which will be better understood when the consequences of this improvement, now before us, are seen and considered.

THE town of Newry stands about two miles above the mouth of the river, and was early fortified by the English, as commanding a very strong pass, leading through the bogs and mountains, between Dundalk and the remoter parts of Ulster. But it was Sir Nicholas Bagnal, Knight, Marshal of Ireland in the reign of Elizabeth, who improved and raised it into consideration (*s*). It was ruined again in the great rebellion 1641, in which its inhabitants suffered incredible hardships (*t*). After the restoration it was rebuilt, and began to make some figure. But, on September 6, 1689, it was again reduced to ashes by the Duke of Berwick (*u*). In consequence of the succeeding settlement of Ireland, the place revived, and, from its convenient situation, grew by degrees, large and populous. The town spreads along the side of a steep hill, surrounded by mountains, except to the north and north-west, where it opens into a very fine country, through which runs the new canal. Below the town lies the river, over which are two handsome stone bridges, one of six arches, on the road leading to Dublin, the other of ten, on that to Armagh, as the high road to the north, passes directly through the town, which has a good market, and two annual fairs (*w*). It subsisted and thrived formerly, chiefly by its being a place of strength, and having a garrison, by its being a great thoroughfare, and by its inland trade; and though at the mouth of a river, falling into Carlingford Bay, it was very little noticed as a port. But of late years, and more especially since the opening of the new canal, it has made a very different figure. In point of size, and number of inhabitants, it comes very near Drogheda, and nearer still in point of commerce, which, according to the informations I have received, has doubled twice within these twenty years (*x*).

THE river Lagan, or rather the bay into which it falls, is the Vindernius of Ptolemy (*y*). This river rises in two small streams, out of the ridge of mountains called Slieve Croob, in the barony of Upper Iveagh, which unite about two miles south-east of Dromore, a bishop's see, but not a place of

(*s*) Camdeni Hibernia, p. 766. Moryson's Itinerary, P. ii. b. 1. chap. 2. p. 59. Description of Ireland, printed 1642. — (*t*) History of the execrable rebellion in Ireland, Appendix, p. 113. Sir John Temple's History of the Irish rebellion, p. 96, 97. History of the county of Downe, p. 93. — (*u*) Life of King William, p. 240, 241. Pointer's Chronological History, vol. i. p. 369. Memoires de la derniere Revolution d'Angleterre, tom. ii. p. 595. — (*w*) English translation of Camden's Britannia. History of the county of Downe, p. 88, 94. Present state of Ireland, chap. viii. — (*x*) Ireland's Natural History, chap. viii. §. 5. Essay on the trade and improvement of Ireland, P. i. p. 86. P. ii. p. 6. — (*y*) Camdeni Hibernia, p. 768. Sir James Ware's Antiquities of Ireland, chap. vi. Baxteri Glossarium Antiquitatum Britannicarum, p. 251.

consequence,

consequence, through which the stream, now become considerable, passes under a bridge of two arches. It proceeds from hence, through the bridge of Gill Hall; and being soon after augmented by another rivulet from two loughs, south of Dro-more, passes under the bridges of Donochloney, Gihon, and Magherelin, i. e. the Waterfield, now wrote Marelin, where it turns north-east, and rolls on till it arrives near Moyrah, a village the linen manufacture is raising to a town, flows next under Spence's Bridge, then under the bridge of the Maze, passes through Lisburn, a thriving town, well-inhabited and well-built, Brumbridge, Shaw's Bridge, all in the county of Antrim, and at length under the bridge of Belfast, after which it empties itself into Carrickfergus Bay, having run in the whole a course of thirty miles (z).

THE town of Belfast, which stands on the west side of the river Lagan, in the county of Antrim, is supposed to have derived its name from the ferry which formerly subsisted there over that river. As this part of Ireland was not thoroughly subdued till the time of King James the First, so this place was far from being considerable, till, in the next reign, the Earl of Strafford made a purchase of the customs in the bay, which had been anciently granted to the town of Carrickfergus; and ever after that this town throve at the expence of the other (a). In 1682 the bridge was begun over the river Lagan, which is one of the finest in the kingdom, having twenty-one arches, besides a great deal of dead work on both sides, all very solidly built of free stone, and very neatly finished, at the joint expence of the counties of Downe and Antrim, and is said to have cost twelve thousand pounds (b). Many circumstances have contributed to render this a large, flourishing, and populous place. The country about it is well-peopled and well cultivated, the bulk of the people protestants, and very industrious (c). The place stands commodiously for carrying on a great trade with Scotland; but the two chief advantages, and which have contributed most to its present grandeur, are its happy situation for the American trade, and the prodigious progress of the linen manufacture in its neighbourhood (d). By an assiduous application to the improvement of these, and other natural benefits, and particularly by the erecting a cambrick manufacture, Belfast is become one of the best towns, and a port of the greatest commerce, in Ireland (e). In respect to its haven, the description of it

(z) Ireland's Natural History, chap. ii. §. 3. History of the County of Downe, chap. vii. p. 145. Present State of Ireland, chap. xi.—(a) Moryson's Itinerary, P. iii. b. 3. chap. 5. p. 159. Earl of Strafford's Letters, vol. ii. p. 103, 205. Additions to the English Translation of Camden.—(b) History of the County of Downe, chap. vi. p. 129.—(c) See the Article of Belfast in Collier's Dictionary. History of the County of Downe, chap. vi. p. 29. Present State of Ireland, chap. viii.—(d) Atlas Maritimus et Commercialis, p. 23. Cutler's Coasting Pilot, p. 22. Account of the Progress of the Linen Manufacture in Ireland.—(e) Essay on the trade and improvement of Ireland, P. ii. p. 6; and from the returns made to subsequent inquiries.

belongs to the next chapter, being a part only of Carrickfergus Bay; and therefore we shall barely add, that Cormoyle Road, where large ships ride safely, is but a small distance below the town (*f*), and that all business is done here with such ease, activity, and dispatch, as does particular honour to the traders of Belfast.

THE river Bann rises in the plain called the Deers, or King's Meadow, in the northern part of that ridge of mountains stiled the Morne, in the county of Downe, and, swelled by various little brooks, soon becomes a large stream (*g*). Then takes a serpentine course to within two miles east of Rathfryland, thence pursuing still a north-west course, and having several fair bridges over it, the silver Bann comes at length to Portadown, where it makes a most stately appearance, is joined there by the canal of Newry, and, a few miles farther, falls into Lough Neagh at Bann Foot Ferry, after running about thirty miles (*h*). Out of that lake, continuing its former direction, it breaks forth again above Toome Castle, and rolling on north-west, dividing the counties of Antrim and Londonderry, it passes through a rugged country, heretofore overgrown with immense woods, then forces a passage over a ridge of rocks, called the Salmon Leap, and having again collected its scattered waters, rushes with an impetuous force into the sea, at what is, from the river, stiled Bann Haven, a few miles below Colerain (*i*). This is certainly one of the finest rivers in Ireland, and, if we include its passage through the lake, runs in the whole near ninety miles, with so pure and limpid a stream, that many assert this, of all the rivers in the three kingdoms, abounds with the best salmon; so that its fishery is of very great value, as hitherto the salmon fishery has been the most profitable of any in this island (*k*).

COLERAIN was formerly a place of great consideration, being the chief town of a county erected by Sir John Perrot during his government of Ireland; whereas it is now only the head of one of the baronies, in the shire of Londonderry (*l*): But it is still a corporation, and sends two members to parliament. It is of a tolerable size, and very elegantly built, situated on the east side of the Bann, about four miles from the sea; but the port is very indifferent, occasioned by the extreme rapidity of

(*f*) Ireland's Natural History, chap. ii. §. 3. Atlas Maritimus et Commerc. p. 23. Cutler's Coasting Pilot, p. 22.—(*g*) Camdeni Hibernia, p. 770. Girald. Cambrenf. Topograph. Hibern. dist. i. cap. 6. Moryson's Itinerary, P. iii. b. 3. chap. 5. p. 159.—(*h*) Ireland's Natural History, chap. viii. §. 4. p. 65, 66. Ancient and present State of the County of Downe, p. 145, 146. Present State of Ireland, chap. iv.—(*i*) Baxteri Glossarium Antiquitat. Britannicarum, p. 33, 201. History of the County of Downe, p. 146. Atlas Maritimus et Commercialis, p. 23.—(*k*) Camdeni Hibernia, p. 770. Essay on the Trade of Ireland. Present State of Ireland, chap. ix.—(*l*) Moryson's Itinerary, Part iii. book 3. chap. 5. p. 159. Sir James Ware's Works, vol. ii. page 31. See the Article Colerain in Collier's Dictionary.

the river, which repels the tide, and makes the coming-up to the town difficult; so that it has but little trade, and might perhaps have less if it was not for the valuable salmon fishery, which amounts to some thousands pounds a year (*m*). If the navigation of the Bann could be opened, which is totally obstructed by the ridge of rocks before-mentioned, it would quickly change the face of things; for then by the help of this river, and the Newry Canal, there would be a direct communication cross the island, and, with the assistance of the Blackwater river, which likewise falls into Lough Neagh, almost all the counties of the province of Ulster might have a correspondence with each other by water-carriage, to their reciprocal and no small emolument (*n*).

THE river Derg, supposed to be so called from the oaks growing about it, flows out of a lough of the same name, in a north-east direction, till it receives the river Finny, which runs also out of a lough of the same name in the northern part of the county, and which, proceeding with a south-east-course, joins the Derg, as also a third river, called, if I mistake not, the Mourne, pursuing an east course between them, near the town of Strabane (*o*). These waters, thus collected, take the name of the river Foyle, and proceeding still north-east, move on to Lifford, which is the shire town of the county of Donegal, pass afterwards by St. Johnstown, and the ancient city of Derry, below which, at the distance of about four miles, they expand themselves, and, uniting with the sea, produce that large salt-water lake, known by the name of Lough Foyle (*p*), which, though strictly speaking, a bay, or arm of the sea, we shall describe in a few words here, because what follows would be obscure without such a description. It is, in effect, an immense oval basin, twelve miles in length, and between five and six in its greatest breadth. Between Magilions and Greencastle, where it opens into the Ocean, it is not above a mile and a half broad (*q*). Before this entrance there is a large sand, called the Tunns, on which the sea sometimes beats with a prodigious noise, but with a broad and deep channel between it and the land, where there is at all times not under fourteen or fifteen fathoms water, and in the very entrance of the lough, from eight to ten (*r*). On the east side of the bay there are also large shoals or banks of sand, and some of smaller dimen-

(*m*) Ireland's Natural History, chap. iii. §. 4. p. 23. Cutler's Coasting Pilot, p. 22. Present state of Ireland, chap. viii. — (*n*) Ireland's Natural History, chap. viii. §. 4. p. 66. History of the county of Down, chap. vii. Bishop Hutchinson's case of Loch Neagh; and the Lower Bann. — (*o*) Camdeni Hibernia, p. 772. Harris's History of Bishops, p. 286. Baxteri Glossarium Antiquitatum Britannicarum, p. 99. — (*p*) Moryson's Itinerary, Part iii. book 3. chap. 5. p. 159. Atlas Maritimus et Commercialis, p. 23. Present state of Ireland, chap. iv. §. 4. (*q*) Ireland's Natural History, chap. ii. §. 4. Speed's map of the province of Ulster. D'Audiffret Histoire et Geographie ancienne et moderne, tom. i. p. 272. — (*r*) Atlas Maritimus et Commercialis, p. 23. Heylin's Cosmography, P. i. 277. Additions to the translation of Camden.

sions on the west side; but the two channels between them are wide, and for the most at least four fathom deep. At the entrance of the river the water is ten or twelve fathom; so that, upon the whole, it is a very safe, capacious, and commodious haven. There are on the west side three old fortresses, called the Green, Red, and White Castles, and on the same side, near the entrance of the river, a castle or fort called Culmore, most of them built for the defence of the English in this county against the natives, when it was first planted (*s*).

THE city of Derry is far from being what some have called it, a place, or even a city, of modern erection, since it has been a bishop's see near six hundred years (*t*). It was in the last long rebellion against Queen Elizabeth, that the Lord-Deputy Montjoy saw the importance of making settlements and garrisons on the side of Lough Foyle, which was often, though without success attempted, till it was at length effected by Sir Henry Dockwra, at the very beginning of the seventeenth century, who built a fort at Culmore, and put an English garrison into Derry (*u*). Upon the Earls of Tyrone and Tyrconnel breaking out into rebellion, and retiring into Spain, some of their accomplices surprized Derry, A. D. 1606, of which Sir George Pawlet was governor, murdered him, with all his garrison, and committed many other cruel and detestable actions. Upon the suppression of this insurrection, upwards of half a million of acres, plantation measure, in six contiguous counties, were forfeited to the crown; and several projects were formed to enable King James the First to settle them (*w*). Amongst others, near two hundred and ten thousand acres were granted to the city of London, and the great companies, in consequence of an agreement signed with the crown January 28, 1609, by which they undertook to plant these lands, and to build and fortify Colerain and Derry (*x*). These preparations so alarmed the Irish, that to keep them in awe, and to put Ulster immediately into a safe condition, the hereditary order of knighthood, called BARONETS, was devised, who purchased their respective patents (were honours ever better acquired?) by the payment of a large sum to support troops, and to defray other expences incident to the civilizing this part of Ireland. Hence these knights bear in their coats of arms, either in a canton, or on an escutcheon, the armorial ensign of the pro-

(*s*) Cutler's Coasting Pilot, p. 22. Speed's map of the province of Ulster, in his theatre of the British Empire. Present state of Ireland, chap. xi. — (*t*) Camdeni Hibernia, p. 772. O Flaherti Ogygia, P. iii. cap. 21. p. 196. Harris's history of the Bishops of Ireland, p. 286. Warei Antiquitates Hibernicæ, p. 215, 288, 299. — (*u*) Fynes Moryson's Itinerary, P. ii. book 1. chap. 2. See the article Londonderry in Collier's Dictionary. See also the article Derry in the same book. — (*w*) Fœdera &c. five Acta Publica, tom. xvi. p. 500, 664. G. Camdeni, regni Regis Jacobi, Annalium Apparatus, p. 6. Roberti Johnstoni, Rerum Britannicarum Historiæ, lib. xiii. p. 440. — (*x*) Stowe's Annals, p. 1004, 1005. Additions to Camden's Britannia, by Doctor Philemon Holland, in his translation. Sir Richard Cox's history of Ireland, vol. ii. p. 14, 15.

vince of ULSTER (*y*), viz. argent, a hand sinister, coupé at the wrist, extended in pale, gules.

THE grant of this tract of country to the citizens of London, was quickly attended with some disputes, on pretence that they had not fulfilled their agreement; but these being pacified, and the place found exceedingly commodious in point of situation, as being a peninsula, having the river, or lake rather, on three sides, and the fourth easily fortified, they began to build and strengthen it with much diligence; and a new charter being sent over to the corporation, and a gilt sword to the mayor in 1615, this city assumed the name of LONDONDERRY. Doctor John Tanner was then bishop, and the first buried in the new cathedral (*z*). In succeeding times, as the value of their grant more clearly appeared, new complaints were raised against the managers for the city of London, and the companies, which produced several royal commissions of inquiry in this and in the succeeding reign, particularly one to Sir Thomas Phillips, whose report is now extant (*a*). At length, on a suit commenced in the Star-Chamber, judgment was given in 1636 against the Londoners, and their estates thereupon sequestered. In 1637, Sir Thomas Fotherley and Sir Ralph Whitfield were empowered by the crown to let leases of these lands. In 1640, the parliament, by their resolution, declared all these proceedings illegal, null, and void. The city, however, did not recover possession till 1655, and held it, as all property was then held, in a very precarious manner (*b*). But, soon after the restoration, 1662, his Majesty King Charles the Second granted a new charter, under which this noble colony quickly began to raise its head again, and has ever since most prosperously proceeded (*c*).

It is no way necessary to enter into a particular description of this small city, because it has been very often, and very accurately, done already. It is sufficient to say, that though not large, it is very neat and beautiful, built for the most part of free stone, with a large church, spacious market-place, and a beautiful stone quay, to which come up vessels of considerable burthen (*b*). It is famous for having resisted the collected

(*y*) Selden's Titles of Honour, P. ii. chap. v. p. 679, 687. Frankland's annals of King James's Reign, p. 8. Markham's book of honour, or five decades of epistles of honour, A. D. 1695. Decad. iii. Epist. 8. p. 112. — (*z*) Strype's edition of Stowe's survey of London, A. D. 1616. Roberti Johnitoni, Rerum Britannicarum, Historiæ, lib. xiv. p. 456. Harris's history of the Bishops of Ireland, p. 492. — (*a*) See the original commissions, with Pinnar's survey, Sir Thomas Phillips's report, and other curious papers on this subject, in Mr. Harris's collection, intitled Hibernica, Dublin, 1747, folio. — (*b*) Earl of Strafford's letters, vol. ii. p. 8, 25, 41, 53, 65, 78, 91, 96. Rushworth's collections, vol. i. P. iii. p. 379. Sir Richard Cox's history of Ireland, vol. ii. P. ii. p. 2. — (*c*) This noble estate is under the direction of a governor, deputy, and assistants, annually elected by the common council of London. — (*d*) Ireland's Natural History, chap. ii. §. 4. p. 14, 15. Description of the place, prefixed to Doctor Walker's account of the siege. Atlas Maritimus et Commercialis, p. 23.

strength of the Irish in the year 1649, when the whole kingdom was in their hands, this city and Dublin only excepted, and both besieged (*e*), as well as for the noble defence it made at the revolution, for one hundred and five days, under the severest famine, against a numerous army (*f*). It is in all respects wonderfully well seated in regard to the adjacent counties, for commanding an inland trade, which has increased amazingly since the establishment throughout the county, now one of the most flourishing and populous in Ireland of the linen manufactory. It also enjoys, or rather might enjoy, a most advantageous fishery, and stands exceedingly well for carrying on a very extensive foreign commerce with New England, and the northern colonies more especially; notwithstanding all which, and its being a county town, it is far from having at present so large a proportion of shipping and commerce as might be wished, and as in all probability it must acquire in succeeding times (*g*). In order to prevent these remarks from appearing intricate or inconsistent, it is requisite to observe, that the commerce of Ireland at present depends chiefly upon provisions, which cannot be supplied from a manufacturing county, where the industrious natives purchase and consume all that are raised; but in process of time, that manufacture which has already produced plenty in the place of indigence, will also, with the same certainty, and in the same proportion, supply materials for commerce, and, by making the people in general wealthy, enable them to profit by all the advantages which their admirable situation affords (*h*).

WE have now made the tour of three of the provinces of IRELAND, and we can only speak in general terms of the fourth. CONNAUGHT, though the least, is notwithstanding a very large country; and though it may be deficient in grain, and in some other respects, yet upon the whole it may be very justly esteemed a rich and fruitful province, and, from the produce of some parts of it, there are just grounds to suppose that the rest might be improved, and speedily too, with a moderate share of industry, to a state far beyond its present condition (*i*). But, except the Shannon, which divides it from

(*e*) History of the execrable Irish rebellion, London, 1680, fol. p. 217. Heath's chronicle of the civil wars, p. 239, 242. Clarendon's historical view of the affairs of Ireland, p. 118. — (*f*) A true account of the siege of Londonderry, by the Reverend Mr. George Walker, 1689, 4to. Life of King William, p. 238, 239. Pointer's chynological historian, vol. i. p. 367, 368. — (*g*) Atlas Maritimus et Commercialis, p. 23. Essay on the trade and improvement of Ireland. Present state of Ireland, chap. v. — (*h*) In most countries where commerce consists chiefly in provisions, there will be a few, who from their property in land, may be luxurious and expensive, while the people in general are low, illiterate and miserable. But where the produce of the country is consumed by labourers and manufacturers, property is more equally divided, few are exorbitantly rich, and fewer still are wretchedly poor. — (*i*) Camdeni Hibernia, p. 755, 756. Sir James Ware's antiquities of Ireland, chap. v. Heylin's Cosmography, p. 297.

the provinces of Leinster and Munster, and the Suck, which falls into the Shannon, there are no large rivers in this province (*k*). It is indeed true that it has a very extensive sea coast, and, as will be seen in the next chapter, many convenient bays, and some very good ports, with a situation very favourable for a correspondence with different parts of the world; notwithstanding which, inland trade is, in comparison of other parts of the island, but very languid, and foreign commerce nothing comparable to what might be expected. This renders it another very capital instance of the truth of our doctrine, that a country is more or less improveable, according to the number, the nature, and the disposition of its rivers; which will, with far greater probability and perspicuity appear, if we enter a little deeper into some particulars concerning it (*l*).

THERE are in this province but very few large towns; and it is only in the neighbourhood of these that the country is in any tolerable degree cultivated. Manufactures have scarce been introduced; and, in consequence of this, the country, or the greatest part at least, is but very thinly peopled (*m*). This will be rendered clear to a demonstration, if we consider, that in Connaught are upwards of two millions and two hundred thousand Irish plantation acres, and yet perhaps throughout this extensive space, the number of houses are not quite five times so many as there are in the city of Dublin. In short, we may reckon in Connaught about forty-seven acres to a family, which is more than twice as many as there are in the provinces of Leinster or Ulster. To reduce these calculations still more, and make the proportion as evident and incontestible as possible, though the province of Connaught contain one-fifth of the whole island, yet it has not one-eighth of the houses or inhabitants; and there is no question that the value of property is also at, or much below, the same rate (*n*). But, notwithstanding all this, it is far from being impossible that this province should be improved in succeeding times, not only very much beyond what it now is, but also, which would be of infinite consequence to Britain, as well as to Ireland, nearly, if not equal, to any of the rest (*o*). For there are several small rivers, and some very large lakes, which, by the assistance of canals, might be made very serviceable to trade, that is, to the settling a general and easy communication between all parts of the country, which would soon attract manufactures of different

(*k*) Ireland's Natural History, chap. viii. §. 2. Spencer's View of the State of Ireland. Present State of Ireland, chap. iv. §. 1.—(*l*) Sir William Monson's Naval Tracts. Sir William Petty's Anatomy of Ireland. Lawrence's interest of Ireland.—(*m*) Additions to the English Translation of Camden. See the Article Connaught in Collier's Geographical and Historical Dictionary. Present State of Ireland, chap. v.—(*n*) These computations are made by the help of tables framed from those of Arthur Dobbs, Esq; and other later writers, on this subject.—(*o*) This is the province in which the people retain most of their ancient manners, and at the same time lies most open to foreign invasions.

kinds; and in the mountains of this country there are mines of several sorts, that might be wrought to profit (*p*), and no doubt will be so, when that spirit of industry, which has done so much in other places, having fewer materials to work upon in them, begins to exert itself here, and the first undertakers find their account, in employing their endeavours to bring so vast a district to yield its due proportion to the public income.

WE have already described the course of the noble river Shannon, the largest in this island, and, all circumstances considered, one of the finest in the British dominions, not only on account of its rolling two hundred miles, but also of its great depth in most places, and the gentleness of its current, by which it might be made exceedingly serviceable to the improvement of the country, the communication of its inhabitants, and of consequence to the promoting inland trade through the greatest part of its long course (*q*). But the peculiar prerogative of the Shannon is its situation, running from north to south, and separating the province of Connaught from those of Leinster and Munster, and of consequence dividing the greatest part of Ireland, into what lies on the east, and what is situated on the west of that river, watering in its passage the valuable, though unimproved county of Leitrim, the plentiful shire of Roscommon, the fruitful county of Galway, and the pleasant county of Clare, in Connaught (*r*); the small, but fine shire of Longford, King's County, and the fertile county of Westmeath, in Leinster; the populous county of Tipperary, the spacious shire of Limerick, and the rough, but pleasant, county of Kerry, in Munster; visiting ten counties in its passage, and having on its banks at present (which I mention, that posterity may remark more easily succeeding improvements) the following remarkable places, viz. Leitrim, Jamestown, Lanesborough, Athlone, Clonefert, Killaloe, and the City of Limerick (*s*); at full twenty leagues below which place, spreading gradually several miles in extent; so that some have considered this expansion as a lake, it at last joins its waters to the sea, being navigable all that way, for the largest vessels. It may perhaps be doubtful whether, even in this country, where such communications are to be made with more ease than in most others, any canal could be so contrived as to connect its navigation with that of the northern counties (*t*). But this is evident, that when the pro-

(*p*) Ireland's Natural History, chap. xvi. §. 5. A Prospect of the State of Ireland, by Peter Walfsh, p. 443. Discourse of the Mines in Ireland, amongst the Bishop of Clogher's MSS. in Trinity-College Library, at Dublin.—(*q*) Political Survey of Great Britain, vol. i. p. 122, 123. Giraldi Cambrenf. Topograph. Hibernia, dist i. cap. 6. Camdeni Hibernia, p. 775.—(*r*) See the Article Shannon in Collier's Dictionary. Additions to the English Translation of Camden.—(*s*) Ireland's Natural History, chap. viii. §. 1. Spencer's Fairy Queen, book iv. canto 11. stanza 41. Present State of Ireland, chap. xi.—(*t*) But we must also remember, that the communication by sea is so short and easy, between the northern and western parts of Ireland, that such a canal would be less necessary.

posed communication shall be effected between the counties on both sides of this river and Dublin, and all the necessary improvements made of which the Shannon is capable, the western counties of Ireland will receive prodigious advantages, and the whole domestic trade of the island be rendered far easier, greater, and more advantageous, than it is at present (*u*). This would afford such encouragement to the cultivation of those four counties in Connaught, that enjoy the benefit of this river, as could not fail of bringing them very speedily into a flourishing condition; as this again would undoubtedly operate in favour of the maritime counties, by supplying materials for foreign commerce, which would then become alike practicable and profitable; to which we may add, that the southern part of the island must be also greatly benefited, and new towns arise on both sides of that immense harbour, for in effect it is all an harbour, from the mouth of the Shannon up to the city of Limerick, in which, though there are many islands, yet there are few or no rocks, shoals, or other impediments, to that extensive navigation, which would necessarily arise from this country's being thus improved (*w*).

THE ancient and noble city of Limerick, called, by the Irish, *Lumneach*, is generally looked upon as the capital of the rich and spacious province of Munster, and has been always regarded as one of the principal marts, and at the same time as one of the strongest places in the whole kingdom (*x*). It stands partly on an island in the Shannon, and is divided into the Upper and Lower Town, united by a stately bridge (*y*). In the former is the cathedral; but both have been, in all times to which history reaches, well built, well inhabited, and well fortified; so that the possession of this city was constantly looked upon as a point of great consequence, in all the intestine wars with which this poor kingdom has been so frequently and terribly afflicted (*z*). The Irish possessed themselves of it early in the grand rebellion, and held it the longest of any except Galway, being surrendered to lieutenant-general Ireton, then styled deputy of the kingdom of Ireland, on the 27th of October, 1651, after the defeat of the last army the Irish could bring into the field for its relief (*a*). In the war which followed the revolution, it was besieged by King William in person, who, by a

(*u*) See what is hereafter said of the schemes of the legislature in Ireland on this head, and the measures they have taken, in order to carry these schemes into execution.—(*w*) Ireland's Natural History, chap. ii. §. 7. Earl of Orrery's State Letters, p. 147. Essay on the improvement of the trade of Ireland.—(*x*) Camdeni Hibernia, p. 742. Fynes Moryson's Itinerary, P. iii. book 3. chap. 5. p. 157. Warei Antiquitates Hibernicæ, p. 332, 333, 334, 335.—(*y*) Speed's Theatre of the British Empire, P. iv. fol. 139, with a print of the old city. See the article of Limerick in Collier's Dictionary. Earl of Orrery's State Letters, p. 144.—(*z*) Giraldi Cambrensis Hibernia Expugnata, lib. ii. cap. 36. Dr. Keating's General History of Ireland, p. 544. Gratiani Lucii Cambrensis Everfusus, p. 328.—(*a*) Earl of Clarendon's historical View of the Affairs of Ireland, p. 237. Ludlow's Memoirs, vol. i. p. 372. Morris's Memoirs of Roger, Earl of Orrery, p. 18, 19.

series of unfortunate accidents, was obliged to raise the siege August 30, 1690 (*b*). It was, however, at length reduced by General Ginkle, to whom it surrendered in October, 1691, when two capitulations were signed, one with the Lords Justices, Sir George Porter, Knight, and Thomas Koningsby, Esq; and Baron Ginkle, in respect to civil affairs; and the other, regarding military affairs only, with the General, Baron Ginkle, alone, which opened a way to the entire settlement of the kingdom (*c*).

At this time Limerick, enjoying all its ancient privileges and prerogatives, is a large, elegant, and populous city, justly reputed the third in Ireland, is the chief place in the county of its own name, one of the finest and the best peopled in the province, well fortified, and having constantly a good garrison; and the governor is commonly a general officer (*d*). For the farther security of this very important place, it has been provided by statute, that no Papists, except labourers and fishermen, shall reside therein as housekeepers; nor are these to rent any tenement of above forty shillings a year (*e*). In respect to commerce, there is a custom-house, with a proper establishment, and a fine quay. But, notwithstanding all this, and though the city has thriven very much during the last century, and increased a seventh part in the number of houses within these twenty-five years, yet the inland trade, and much more the foreign commerce of Limerick, is, at present, nothing comparable to what in succeeding times may be justly expected, from the excellence of its situation, and those eminent national improvements, which, in consequence of true principles of policy, sincerely embraced and steadily pursued, are now not barely proposed, but actually carrying on (*f*). For this being, at least, the commercial center of those two great and wealthy provinces, Munster and Connaught, and, with respect to the latter, lying very commodiously for carrying on an intercourse between it and the country to the south of Dublin, there is no doubt to be made, as that large province is gradually, and in its turn, cultivated and improved, the trade and correspondence of Limerick must in virtue thereof prodigiously increase, and from thence, in process of time also, its foreign commerce, by the export of all those commodities and manufactures which the encouragement of industry, and the many good laws for the amendment of the

(*b*) Bishop Kennet's complete History of England, vol. iii. p. 605. Bishop Burnet's History of his own times, vol. ii. p. 59. Life of King William III. p. 282.—(*c*) These particulars are drawn from the following authentic Piece, "A Diary of the Siege and Surrender of Limerick, with the Articles at large, both civil and military. Published by Authority, London, 1692, 4to."—(*d*) Sir William Petty's Anatomy of Ireland, p. 186. Lawrence's Interest of Ireland, P. ii. p. 161. Civil and Military Establishment in Ireland.—(*e*) Stat. ii. Ann. cap. 6. §. 24. & 31.—(*f*) See what is already said, and also what follows, in regard to the Acts passed in Ireland, for promoting Tillage and inland Navigation.

roads in this part of the kingdom, and to this very city in particular, will certainly produce (*g*). A circumstance the rather to be regarded, as the advantages that might be derived from this port were long ago foreseen (*h*), though prevented by that series of intestine confusion, to which this island has been exposed; and reserved for our times, or at least in consequence of laws passed in our times, to be at length fully accomplished. A thing so much the more to be wished, as this would turn to abundantly greater benefit than the conquest of any district in Europe, or the acquisition of vast countries in remoter parts of the world.

To conclude this subject in so plain and perspicuous a manner, as that the reader may be fully convinced of the truth of all that we have advanced, we must observe, that almost from the æra of the English first settling in Ireland, they saw well enough the value of navigable rivers, the improving those that were, and the attempting to render navigable such as were not. In order to this, they procured several good laws to be made (*i*); and there were, no doubt, seasons in which they endeavoured to carry these into execution. But, on the one hand, so long as they were conquerors only of different parts, and not masters of the whole, the natives had a counter interest, which induced them not only to neglect such improvements themselves, but to prevent them likewise as far as lay in their power, because the freedom of communication, and the penetrating easily into all parts of the country, was what they considered as directly opposite to the measures necessary for their own defence, and the support of that independence which they always affected (*k*). On the other hand, the wars that so frequently disturbed this island, and the many alterations which these occasioned, made the English themselves, during such scenes of confusion, lose sight of this advantage, or at least hindered them from prosecuting effectually the scheme that in more quiet times, they had formed for that purpose (*l*). But, whenever these seasons of tranquillity returned, we find them constantly resuming such intentions; and as it sometimes happened that men of patriot dispositions, and who really wished well to the interests of the country and its inhabitants, were either intrusted with power, or acquired such a measure of property as enabled them to carry these intentions, in some degree, into execution (*m*); here and there,

(*g*) See the following Statutes, 5 Geo. II. cap. 22. 11 Geo. II. cap. 18. 15 Geo. II. cap. 11. 17 Geo. II. cap. 13. 25 Geo. II. cap. 15.—(*h*) Earl of Strafford's Letters, vol. i. p. 105. Earl of Orrery's State Letters, p. 84, 85.—(*i*) Stat. xxv. Edw. III. Stat. iv. cap. 4. 45. Edw. III. cap. iii. 1. Hen. IV. cap. xii. 12. Edw. IV. cap. vii. §. 3. 28. Hen. VIII. cap. xxii. §. i, 2.—(*k*) Consult, as to the customs and manners of the old Irish, Stanishurst, Spenser, Camden, Moryson, O Flaherty, Walsh, and Keating.—(*l*) In the Civil Wars in the Reigns of Queen Elizabeth and King Charles I. the English Protestants were obliged to destroy some, and suspend all improvements.—(*m*) Such as the Sidneys, St. Johns, Boyles, Wandesfords, Careys, Bagnals, Tichbournes, and many more that might be mentioned.

at different times, so much was done in this matter as plainly settled the point, from the light of experience as well as reason; for, whenever this happened, the benefits that followed it were so sudden and so apparent, and the state of the countries, thus improved, so very different, when compared with others, where it could not be effected, that the doctrine was alike confirmed by the success with which it was attended, and by the inconveniencies that evidently flowed from the want of it in other cases. Such, however, were the mischievous effects of the untoward vicissitudes to which the affairs of this nation for a long series of years were exposed, that, after all the endeavours in the reigns of James and Charles the First, and the several like attempts after the restoration (*n*), in both which periods the advantages of Ireland were sometimes very attentively considered, so it fell out, that by an authentic account, taken almost at the close of the last century (*o*), all the seafaring people, including also such as were engaged in the inland navigation, fell short of four thousand five hundred, and we may say, with truth, not a little short of what are now employed in and about the single port of Dublin. Such an amazing progress has been made in little more than half a century, since this island enjoyed uninterrupted tranquillity, and the arts of peace and civil improvement have been cultivated by men of property, acquiring daily, from experience, more and more skill in both.

In the beginning of his late majesty's reign, this important point came to be expressly and maturely considered, in the place and by the persons who could alone command all the lights that are necessary to judge of it with propriety, and had at the same time the power of doing what ought to be done, to carry what, upon obtaining those lights, and judging of their utility, they thought reasonable, into execution (*p*). In consequence of this, and, which was very natural, fixing their eyes first on the navigation of the Shannon, the legislature passed an act (*q*), with a view to remove every impediment in the passage by that river between the town of Carrick Drumrusk, in the county of Leitrim, and the city of Limerick. In order to which they appointed certain commissioners or undertakers, who are named in the act, armed them with large powers, who were (at their own cost and charges) with all possible diligence, to prosecute this great and good design with effect, and, by the same law, enabled them to fix certain tolls and duties for the repayment of the expence, and for the support of the works, that for this purpose should be requisite.

(*n*) By the Lords Montjoy and Grandison, the Earls of Cork and Strafford, the Duke of Ormond, and the Earls of Essex and Orrery.—(*o*) Captain South's Return of the Seafaring People in Ireland, A. D. 1697, in the Philosophical Transactions, No. cclxi. p. 519.—(*p*) This Act was grounded upon the Advantages that would immediately arise to so many different Counties, by rendering the Shannon navigable above Limerick.—(*q*) Stat. ii. Geo. I. cap. 12. extremely full and plain in reference to the great Object, and no less tender, in many Respects, of the Liberty of the Subject.

But,

But, after all this was done, and, notwithstanding any unforeseen defects in the first law, were amended by subsequent acts (*r*), planned with great care and deliberation, and which manifested much zeal and public spirit, yet all this vigour and diligence proved ineffectual, and they saw at last, that with the best intentions possible, and with all the skill and pains that could be employed, private men, and private purses, though assisted and supported by the highest authority, were instruments altogether inadequate to an undertaking of this kind; which shews that things the most laudable in their nature, even when conducted by national wisdom, are not always with facility to be brought about (*s*). It redounds, therefore, to the just and immortal honour of the Senate of Ireland, that they were not discouraged by these difficulties, or deterred by the repeated disappointments they met with, endeavouring to remove them, but from a full persuasion of the great importance and public utility of the scheme they had formed, and having a just confidence in their own power, persisted steadily in their efforts to bring it to that perfection which was originally proposed, and which the whole nation so earnestly desired to see accomplished (*t*).

It was, however, by a concurrence of unlucky accidents, delayed for many years, and, after all, reserved for the present reign to see this excellent scheme put into a proper method, and thereby rendered as effectual towards national happiness, as the conception of it was an indubitable proof of true patriotism, and genuine public spirit. It is of the greater consequence for me to set this matter in a full light, because these repeated acts of the Irish Legislature, are so many authentic testimonies of the truth of that doctrine which I have been labouring to maintain (*u*). They saw, and were convinced of its public utility, and were from thence desirous of seeing it carried into practice; which they likewise knew must be within the compass of their own power, when properly applied. If they failed more than once in their efforts, this ought to be attributed to their having no precedent to follow, which is a circumstance that deserves to be regarded (*w*). By their inflexible perseverance and constant inquiries, they drew from those very disappointments the necessary lights they originally wanted, and, by adhering to their first principle, but varying, as reason and

(*r*) Stat. viii. Geo. I. cap. 6. repealed by the succeeding Statutes, which, instead of undertakers, established a corporation.—(*s*) It is not the plainness and general utility of a design, that contributes, always, to render it practicable, as appears by our Laws in relation to Wool, for regulating the Militia, and in reference to draining the Fens.—(*t*) As soon as the Law passed for removing the obstructions which prevented the navigation of the Shannon above Limerick, the Eyes of the whole Nation were opened in regard to the general Doctrine, and this produced an extension of the scheme.—(*u*) It is in this respect, that these Laws are to be considered, as so many attempts, to carry one great point of genuine policy, as far as it will go.—(*w*) This is not spoken in regard to the scheme for improving the Shannon, but of the more extended plan which that design, as we shall see, produced.

experience taught them, from the primary plan, they gradually arrived at that perfection which they always had in view, and have not only accomplished their point, and overcome all obstacles, but have likewise supplied that precedent to others which was wanting to themselves, and have established a model for the improvement of all countries, that nature has rendered capable of being improved in this respect, which will be of universal utility; and therefore, though Ireland (as indeed she ought) reaps the immediate benefit of these excellent laws, yet, in their nature, spirit, and method, they may be justly considered as so many instructive lessons to mankind (*x*). Under a full persuasion of this, I thought it my duty to place the design in so strong a point of view, and from a very succinct account of the substance of these laws, I entertain no doubt that the judicious reader will, upon that evidence, be of my opinion (*y*).

INSTEAD of the commissioners or undertakers who were at first appointed for compleating the navigation of the Shannon (*z*), they have created a new and perpetual council, to superintend the most important national improvements, under the title of "The corporation for promoting and carrying on an INLAND NAVIGATION in IRELAND," composed of the Lord Lieutenant or Chief Governor, the Archbishop of Armagh, the Lord Chancellor or Lord Keeper, the three other Archbishops, and the Speaker of the House of Commons for the time being, and twenty commissioners from each of the four provinces in Ireland, with a power of filling up vacancies, as they shall happen, by election (*a*). They have next provided a fund, which, being renewed by the second act in the present reign, is to continue to Lady Day 1772, arising from new duties imposed by the former act on cards and dice, coaches and other carriages, and plate wrought or imported (*b*); and being instructed by experience, as to the necessary connection of useful designs, which are often, if not always, cramped by particular directions, they have very prudently

(*x*) The very same embarrassments may probably be felt where-ever any general scheme of this sort is undertaken, and then the remedies may be applied. (*y*) The operation of the legislative power, and the efficacy of the means, being so exactly proportioned to the nature and utility of the end proposed.—(*z*) Stat. iii. Geo. II. cap. 3. 25. Geo. II. cap. x. But by both these laws, whatever was found right in the former acts, was continued and confirmed; whatever appeared improper, or was discerned to be impracticable, was repealed.—(*a*) The names of these Trustees are annually printed in the Dublin Almanack, and are the most respectable Peers and Commoners resident in the respective provinces, who are by this means acquainted, not only with the management and progress of this, but also initiated into the knowledge of every other national improvement.—(*b*) These new duties are, six pence on every Pack of Cards made, and twelve pence on every Pack imported into Ireland; twenty Shillings on every Coach, and other Carriage, with four Wheels; and five Shillings on Carriages with two Wheels; and six pence per Ounce Troy on all plate wrought or imported into Ireland; Books, containing the produce of which, are to be kept separately, and accounted for annually to the Commissioners.

taken away all limitation (*c*), and impowered these commissioners, or rather public trustees, or the major part of them, no fewer than eleven being present, to apply the monies arising from the duties imposed by this act, or any part thereof, for the encouragement and improvement of tillage, employment of the poor, draining and improving bogs, and unprofitable low grounds, making of the several rivers navigable, and making of canals, for the easing and dispatching the inland carriage and conveyance of goods from one part to another within this kingdom, and by such means, and in such manner and proportion, and at such times as they shall think most convenient, except by giving any premium upon the exportation of corn out of the kingdom (*d*). Besides this standing provision, considerable sums have been occasionally given to quicken and promote this laudable work, which is now said to be advancing with great rapidity (*e*). We may therefore safely aver, that if the whole of this expensive undertaking shall be as honestly and uprightly executed as these laws are wisely framed, and honourably intended (*f*), Ireland will be very speedily one of the best watered countries in Europe, the manifold advantages flowing from which will incontestibly demonstrate the positions we have laid down, and vindicate the length of this chapter from all objections.

(*c*) By giving these general and extensive powers, the trustees are exempted from resorting perpetually to parliament on every little incident, which would have been attended with many delays, and other inconveniencies.—(*d*) These, which are the very words of the act, shew evidently how thoroughly the plan has been digested, and all its consequences considered.—(*e*) Establishing a permanent board of trustees, was not a wiser step than limiting the fund, and securing these occasional applications for assistance.—(*f*) If any errors should be discovered in the execution of this design, they must fall immediately under the correction of the legislature.

CHAPTER VII.

THE various beneficial consequences arising to the British dominions, from the large extent and peculiar figure of their coasts. A general view of this subject, and an explanation of the advantages attending a great extent of coast. These advantages well understood, and justly celebrated by authors ancient and modern. Yet such advantages not entirely due to the size, but depend also in a great measure on the form of a coast. The great excellence in both respects of the coast of Great Britain. Reasons that make the distinct and accurate survey of the benefits that already are, or hereafter may be, deduced from hence, necessary in this work. View of the principal ports on the east side of South Britain, their history, with occasional observations on their conveniencies and defects. The west and south coasts of this part of the island, considered in like manner. Remarks on the bays, roads, and havens, on the coasts of Wales. The same survey continued in regard to the inlets, ports, and harbours, in North Britain, and

and the improvements pointed out of which they are capable from their situation. The coasts of Ireland surveyed, their advantages, and the much greater advantages that might be drawn from them. The conclusion, in which all that has been before alledged, is confirmed from reason and authority.

WE may, with equal truth and propriety, place the large extent of its coast amongst the principal prerogatives of Great Britain. We mean by this something more, than what, in comparison of maritime countries on the continent, belongs to it as an island, because, as we shall shew hereafter, this beneficial extent of coast results chiefly from the peculiar and advantageous figure of this island, and is already and apparently in many, and in a multitude of other instances, may be rendered singularly commodious to its inhabitants in that respect (*a*). By this means our own are sent out, foreign vessels are invited from all quarters, go and return by every wind, and are received and entertained in safe and convenient ports on every side (*b*). The constant, copious, and convenient, distribution of the goods they bring from foreign parts, along the shores of so large an island, exclusive of all that is sent by land, to which these also very largely contribute; and the carrying the superfluities of our own growth, and manufactures from rough materials, imported from one part of such a country as this to another, gradually produces a prodigious coast trade, which is of inexpressible value, as it occasions settlements near to, or immediately on the sea coast; and, in consequence of this, the cultivation of adjacent lands, the improvement of harbours, the increase of shipping, and the augmentation of seamen, which are circumstances of no small importance to the people of every country, but more especially to be sought for and cherished, as proper and peculiar blessings to the inhabitants of an island (*c*). Besides these, it produces another very happy effect, as it affords inexpressible conveniences for many different sorts of fishing, and facilitates the distribution of the produce of those fisheries, which is everywhere the natural parent of trade and a naval power; and hence it is that in this, and indeed in almost every other maritime country, of which we have any tolerable history, we find that the most famous sea ports have risen by degrees, and a concurrence of fortunate circumstances, up to that rank, from being originally no better than fishing towns (*d*); into which, from a series of untoward accidents, or from the effects of any sudden

(*a*) Strabonis Geograph. lib. iv. p. 199. Diodorus Siculus Biblioth. Hist. lib. v. cap. 2. p. 209. Dionysius Afer in Periegesin. Panegyricus Constantio dictus. L'Isle piu famose del Mondo descritte da Thomaso Porcacchi, lib. i.—(*b*) Paulus Jovius in Descriptionem Magnæ Britanniae. De Witte, Gronden en Maximen, van de Republieck van Holland, ii. deel. cap. 9. D'Audiffret Histoire et Geographie ancienne et moderne, tom. i. p. 140.—(*c*) Herodotus, lib. i. Thucydides Hist. lib. i. Diodorus Siculus Biblioth. Hist. lib. iv. v. Strabonis Geograph. lib. iv. Elmacin. Hist. Saracen. lib. ii. cap. 17.—(*d*) As for instance, Stockholm, Copenhagen, Venice, Amsterdam, Dublin, and many others.

calamity, they as naturally dwindle again; of which we have already given so many instances, that it is not at all requisite we should repeat, or make any additions to them here (*e*).

FOR these, and for a variety of other reasons, we find the beneficial consequences that necessarily result from such an extensive sea coast, have been constantly celebrated by all the intelligent authors, who have treated of such countries as were possessed in any remarkable degree of this blessing (*f*). 'This was the genuine source of industry, wealth, and splendour, to the ancient Arabians (*g*); this was the instrument of Egypt's greatness (*h*); it was this rendered the Phenicians conspicuous through a long course of ages (*i*); and where-ever this advantage is thoroughly improved, from a proper attention, it is simply impossible that its inhabitants should not thrive faster, and be in all respects in a better condition, than their neighbours (*k*). It is indeed true, that the wisdom and industry of man, taking hold of some peculiar circumstances, may have rendered a few inland cities and countries very fair and flourishing. In ancient history we read of Palmyra (*l*), and the district round it, becoming a luxuriant paradise in the midst of inhospitable deserts. But this was no more than temporary grandeur; and it has now lain for some ages in ruins, which, to the general satisfaction of the republic of letters, and the peculiar honour of this country, have been lately rescued from the rage of time, and the merciless ignorance of barbarous nations, by the skill and care of the learned and ingenious Mr. Wood (*m*).—The city and principality of Kandahar was, in like manner, rendered rich and famous, in consequence of its being made the center of the Indian commerce; but long ago declining, its destruction has been completed, in our days, from that dreadful delolation which Thamas Kouli Khan spread through Persia and the Indies (*n*). Here in Europe, many of the large cities in Germany, which for a time made a great figure, from the freedom and industry of their inhabitants, and diffused ease, plenty, and prosperity, through the districts dependant upon them, which of course rendered

(*e*) The Political Survey of Britain, vol. i. p. 24, 25, 31, 150, 151, 152, 175.—(*f*) Strabonis Geograph. lib. iii. Arrian. Peripl. Pont. Euxin. Polyb. Hist. lib. vi. Hornii Dissertationes Historicae et Politicae, Diff. x. Deslandes Essai sur la Commerce et sur la Marine, p. 101.—(*g*) Diod. Sicul. Biblioth. Hist. lib. iii. Plin. Hist. Nat. lib. vi. Huet Histoire du Commerce et de la Navigation des Anciens, chap. xiii.—(*h*) Strabon. Geograph. lib. xvii. Appian. in Praefat. Athen. Deipnosophist. lib. iii. Elmacin. Histor. Saracen. lib. ii. cap. 16. Sanudo, Secreta Fidelium Crucis, 157.—(*i*) Herodot. lib. i. Plin. Hist. Natur. lib. vii. Joseph. contra Apion. lib. i.—(*k*) Strabon. Geograph. lib. xvi. Diodor. Sicul. Biblioth. Hist. lib. v. Plutarchus in Solone.—(*l*) 2 Chron. viii. 16. Joseph. Antiq. Jud. lib. viii. Appian. de Bellis civil. lib. v. Plin. Nat. Hist. lib. v. Trebell. Pollio in Gallienis Vopisc. in Aureliano.—(*m*) The title of this elegant work runs thus: The Ruins of Palmyra, otherwise Tedmor, in the Desert, London, 1753, Folio.—(*n*) Claud. Ptolem. Geograph. Asiae, tab. vii. Histoire du Grand Gengiscan, lib. iv. chap. 7. Voyages de Tavernier, lib. v. chap. 24. D'Herbelot Biblioth. Orientale, p. 243. Voyage en Turquie et en Perse, par M. Otter, tom. i. chap. 35.

them populous, are now so much sunk, from inevitable accidents, as to be but shadows of what they were; and, though they still continue to subsist, subsist only as the melancholy monuments of their own misfortunes (*o*). We may therefore, from hence, with great certainty discern, that all the pains and labour that can be bestowed in supplying the defect of situation in this respect, proves, upon the whole, but a tedious, difficult, and precarious expedient.

BUT, however, we must at the same time admit, that it is not barely the possession even of an extended coast, that can produce all these desirable effects. The coast must be likewise distinguished by other natural advantages, such as capes, and promontories, favourably disposed to break the fury of the winds, deep bays, safe roads, and convenient harbours (*p*). For, without these, an extended coast is no more than a maritime barrier against the naval force of other nations, as is the case in many parts of Europe (*q*), and is one of the principal reasons why Africa derives so little benefit from a situation, which, as we have already observed, has so promising an appearance, there being many considerable tracts upon its coasts equally void of havens and inhabitants, and which afford not the smallest encouragement to the attempting any thing that might alter their present desolate condition (*r*). It is, however, a less convenience, and in some cases no convenience at all, if, in the compass of a very extended coast, there should be some parts difficult and dangerous of access, provided they are not altogether inaccessible (*s*).

THE sea coast of Britain, from the figure in some measure of the island, but chiefly from the inlets of the sea, and the very irregular indented line which forms its shore, comprehends, allowing for those sinuosities, at least eight hundred marine leagues (*t*). We may from hence, therefore, with safety affirm, that, in this respect, it is superior to France, though that be a much larger country; and equal to Spain and Portugal in this circumstance, though Britain is not half the size of that noble peninsula, which, as we have already remarked, is so singularly happy in this very particular (*u*). From the same causes that render our sea coast so extensive, it is likewise rendered so much the more commodious, inasmuch that, exclusive of those havens which are formed by the mouths of navigable rivers, which

(*o*) *Misson Voyage d'Italie*, tom. i. lettre 8. p. 56. *Burnet's Travels*, letter v. *Ray's Travels*, vol. i. p. 68, 69.—(*p*) *Vareni Geograph. General.* §. iv. c. 12. *Hydrographie du P. G. Fournier*, lib. ii.—(*q*) *Sir William Monson's Naval Tracts*, book. v. *Deslandes Essai sur la Marine et sur le Commerce*, p. 105. *Cutler's Coasting Pilot*, p. 50.—(*r*) *Dictionnaire Universelle de Commerce*, tom. xi. p. 631. *Hamilton's Account of the East Indies*, vol. i. p. 5, 11, 23. *Atlas Maritimus et Commercialis*, p. 263.—(*s*) See *Yarranton's Improvement of England by Sea and Land*, p. 3, where he shews the advantages the Dutch reap by the shoals and shallows on their coasts.—(*t*) It is very difficult, if not impossible, to make an exact computation; however, in the course of this chapter it will appear, we have kept within bounds.—(*u*) *Political Survey of Britain*, vol. i. p. 7.

were the subject of the last chapter, we have as many large and safe bays, secure roads, and convenient ports, of different sizes, arising from such dispositions of sea and shore, as any other country in Europe (*w*). This, in conjunction with our other advantages, certainly completes the felicity of our country, since it puts it most incontestibly in the power of its inhabitants to cultivate and improve every part of it, almost in an equal degree; which can only be the lot of an island; and, if we reflect on the size of ours, is not a little extraordinary (*x*).

BUT assertions of this kind will go but a very little way with foreigners, and would indeed, if unsupported and unimproved, by a display of their utility, be full as little to the purpose in regard to ourselves. In order therefore to obviate every objection, and not only to put the matter of fact out of all doubt, but also to derive from thence some necessary and important lights, we will in this chapter enter into a succinct description of our coast, strictly in this view, from whence it will appear, that we have not either taken up this sentiment hastily, or at all exaggerated the numerous benefits that may be reasonably expected, and, in process of time, and in consequence of gradual improvements, actually will from this circumstance accrue (*y*). If this attempt of ours should only serve to excite a brisker curiosity in the inquisitive peruser, and awaken an ardent desire in him to be more particularly informed as to those points, which, from the bounds prescribed to this work, we but briefly mention, it will answer a very valuable intention (*z*), since there is nothing that can contribute so much to the improvement of this country, and of course to the welfare of this nation, as the being thoroughly apprized of all its natural advantages, and the consequences with which they may be attended, which will appear inexpressibly clearer, upon a strict and minute inspection, than they could be conceived from any general encomiums that are to be found in the works either of ancient or modern, of our own or foreign writers, who yet have taken a pleasure in expatiating in very strong terms upon this subject, and who perhaps have sometimes complimented us upon imaginary blessings, while at the same time they omitted many of which we are already possessed, and many more which, from these that are actually in our hands, it may be in our power to obtain (*a*).

WE

(*w*) See Templeman's Survey of the Globe, plate xxx. and compare its contents with those of plate xxxi.—(*x*) Thus, as well from the soil as the climate, a great part of Iceland is uninhabited. In Java, otherwise fully peopled, the hilly country in the centre is a mere desert. In the isle of Bourbon, though exceeding pleasant and fertile, there is a district parched and burnt up. The Blue Mountains in Jamaica are as intensely cold, as the rest of the country is hot.—(*y*) Supposing that we do as much in the next century as was done in the last.—(*z*) This kind of curiosity is natural, sensible, and useful; it ought therefore to be cherished. ———
(*a*) Strabo places gold and silver among the products of Britain. Cicero denies that either of these metals are to be found in this island. Cæsar is silent. British pearls were
once

WE have already observed that the North Fore-land in the county of Kent, and the Naze in Essex, bound the mouth of the river Thames (*b*). Sailing northward from the latter, when we have passed by Harwich, which has been before mentioned (*c*), we come next to Bawdsey Haven, so called from a village of that name, on the north side of the river Deben, which here falls into the German Ocean (*d*). The entrance is but shallow at low water, yet being once over the bar, the river becomes deeper; upon which stands Woodbridge, a populous growing town, driving a considerable trade, and at which some good ships have been built (*e*). The next is Orford, sheltered by a low beach running out into the sea, called Orford Ness. It was anciently a very good haven, fined in the reign of Richard the First for transporting corn to the king's enemies in Flanders; furnishing three ships and sixty-two sea men in that of Edward the Third, for the king's service (*f*). It was long before this a parliamentary borough, as it still continues; though the sea, by withdrawing from its harbour, which was formerly both commodious and capacious, has in some measure deprived it of that trade, which, in those days, was its support; so that now it is considered, in our custom-house accounts, as a creek dependant upon Aldborough, or Aldburg, which is itself a member of the port of Yarmouth (*g*). This, which is, properly speaking, no more now than a fishing town, sends also members to parliament, though not before the reign of Elizabeth, who granted the Duke of Norfolk, to whom it then belonged, a fair at Aldburgh (*h*). The place is still in a pretty good condition, though the sea, which injured Orford by withdrawing, has committed also great depredations upon this coast, for want of a proper dike, or sea-wall, that might protect the shore from its encroachments; and this remark deserves the more attention, as the whole valley of Slaughden, in which this town is seated, seems not to be otherwise secure from the future ravages of this merciless element, though from such precautions as are used in other countries, they might here also doubtless be restrained (*i*).

once famous Tacitus allows us all Sorts of Fruit but the Vine and Olive, which, he says, belong to warmer Climates. Others admit that Wine may be made here. Posterity, perhaps, may introduce both Wine and Oil.—(*b*) Political Survey of Great Britain, vol. i. p. 139. Atlas Maritimus et Commercialis, p. 1. Cutler's Coasting Pilot, p. 3.—(*c*) Political Survey of Great Britain, vol. i. p. 144.—(*d*) Camdeni Britannia, p. 338. Speed's Theatre of the British Empire, fol. 34.—(*e*) Camdeni Britannia, p. 338. According to some Accounts there are four or five Docks in this Town, with several Manufactures.—(*f*) See the authentic Roll of this mighty naval Armament, published in Hackluyt's Collection of Voyages, vol. i. p. 118. Madox, Firma Burgi, cap. vi. §. p. 124.—(*g*) Molloy de Jure Maritimo et Navali, p. 322. Present State of London and the Outports. Crouch's complete Views of the the Customs, p. 385.—(*h*) Camdeni Britannia, p. 339. Willis's Notitia Parliamentaria, vol. i. Preface, p. 25.—(*i*) Speed's Theatre of the British Empire, fol. 34. Additions to Camden's Britannia. Chidrey's Britannia Baconica, p. 101.

DUNWICH, in the Saxon chronicle called Dunmoc, by Venerable Beda, Donmoc, and by King Alfred, Donmoeceaster, was in the Saxon times (*k*) a bishop's see, and is reported to have had in it once upwards of fifty churches, chapels, convents, and hospitals, as Sir Henry Spelman informs us. All this it derived from its excellent haven; and as that failed by degrees, so the place also gradually decayed, no proper method (through want of skill perhaps in those ages) being employed for its preservation, though the inhabitants could not but be long aware of the consequences (*l*). The sea began its encroachments before the Norman conquest; for we find it recorded in Domesday, that there were then in it two hundred thirty-six burgesses, and one hundred poor. A plain sign that it was once great, and now declining (*m*). This therefore is an instance which shews evidently, that, in all ages, a good port was an extraordinary advantage to any country, and contributed to render it well inhabited, and, according to the knowledge and industry of the people, thoroughly cultivated, as it must have been when this city was in its flourishing state, and must have sunk proportionably as this place lost its commerce, and by that and other misfortunes leisurely dwindled away. We shall, for this reason, and that the progression of those misfortunes may more distinctly appear, mention some other circumstances, in their order of time, relating to this once celebrated, and now inconsiderable place. In the reign of Richard the First, it paid that monarch a fee-farm rent of one hundred and twenty pounds, and a mark, together with twenty-four thousand herrings, annually (*n*), which, on the representation of the inhabitants, was lessened by succeeding princes (*o*). King John, to whom they steadily adhered, as indeed most of the sea-ports did, was remarkably kind to them, and granted them a large charter of privileges, having before abated one-third of their rent (*p*). Henry the Third, not only made them a further abatement, but also bestowed on them a sum of money towards repairing their walls (*q*). To Edward the Third they furnished six ships, and one hundred and two men (*r*); and even so late as the reign of Queen Elizabeth, they contributed to the full extent of their abilities for the public service, which her majesty gratefully acknow-

(*k*) Chronic. Saxon. p. 63. l. 10. Bedæ Hist. Eccles. Gent. Anglorum, lib. ii. cap. 15. Ex Chronico Mariani Scotti, A. D. 660.—(*l*) Harding's Chronicle, cap. xci. Leland's Itinerary, vol. iv. p. 1. fol. 47. Stow's Chronicle, p. 61. Weaver's Funeral Monuments, p. 717. Doctor Dee had a M. S. History of Dunwich.—(*m*) Lib. Domesday, fol. 304. et fol. 311. b. where it is said a great part of the land belonging to this town had been washed away by the sea. Camdeni Britannia, p. 339.—(*n*) Mag. Rot. 10. Ric. 1. tit. Norfolk, et Sudfolch, m. 2. b.—(*o*) Godwin's Catalogue of English Bishops, p. 416. Brady's Treatise of Boroughs, p. 4. Madox's Firma Burgi, cap. vi. §. 5; cap. xi. §. 6.—(*p*) 1. Johannis, n. 164. Cart. 7. Johannis, m. 6. n. 45. It was time to reduce a rent almost twice as great as any other place paid, especially as it was decaying.—(*q*) Magn. Rotul. 35. Hen. III. m. 1. a. tit. Norfolk et Suffolch. Term. Mich. Com. 4. et 5. Edw. 1. Rot. 2. a.—(*r*) See the Roll of Edward III. Fleet, before cited.

ledged, both by confirming their old, and granting them a new charter (*s*). In the reign of Charles the Second, in consideration of the poverty of its inhabitants, the loss of their port, and other inevitable misfortunes, he reduced their fee-farm to five pounds per annum during pleasure, and remitted all arrears due on former quit rents (*t*). King James the Second granted them, by letters patent, a confirmation of their old, with the addition of new franchises (*u*); but the loss of their trade was a blow irreparable, and the damage done by the sea, so late as 1740, has almost destroyed their hopes. It is now, like Orford, a creek to Aldborough, but like it also remains a corporation, and sends two members to parliament (*w*), notwithstanding its low and lamentable condition, as not having at present a fourth part as many inhabitants, as there were good houses destroyed by an irruption of the sea in the reign of Edward the Third (*x*), and not more fishing boats left to subsist the townsmen, than in that reign they furnished good ships for the public service. If, at first sight, the memorable and melancholy fate of this city seems to make against my doctrine, let the reader reflect how its inhabitants, on their private stock, have fought against the depredations of the sea for more than seven centuries, paid all the time to, and remained unassisted by, the public; let him, I say, think seriously of this, and he will change, I doubt not, his opinion.

THE coast lies due north from Orford Ness to Southwold; a bold shore, and safe anchoring all the way. A little to the south of the place last mentioned, the sea breaking in upon the shore makes a creek, which, when entered, spreading out, divides to Dunwich (*y*), Southwold and Walderswick. While the town of Dunwich retained any share of trade, she laboured incessantly, her very existence depending upon it, to distress Southwold; till, to end the dispute, the latter was incorporated by Henry the Seventh (*z*). This town, which, like Dunwich, stands on a cliff, at the coming-in of the tide is almost surrounded by the ocean, has some share of commerce from its situation; and, whenever the river Blith, which falls into the creek before-described, shall be rendered navigable, it

(*s*) Lambard's Historical and Topographical Dictionary, p. 90.—(*t*) Originale 14 Car. II. Pars iv. Rot. 6.—(*u*) Originale 1 Jac. II. Pars vi. Rot. 53.—(*w*) The Reader may find a very accurate List of the members for this borough, from the first of Edward I. to this time, in Gardner's History of Dunwich, p. 87.—(*x*) On the 14th of January, in the first year of Edward III. the old port, which was safe, capacious, and deep, was utterly destroyed; and by the twenty-third of the same reign, no fewer than four hundred substantial houses were washed away.—(*y*) The curious and inquisitive reader, who is desirous to know more of this matter, may consult the following laborious and sensible work. "An historical account of Dunwich, anciently a city, now a borough; Blith-burgh, formerly a town of note, now a village; Southwold, once a village, now a town corporate; with remarks on some places contiguous thereto, principally extracted from ancient records, &c. by Thomas Gardner, 1754, 40." (*z*) Speed's Theatre of the British Empire, fol. 34. Camdeni Britannia, p. 339. Madox, Firma Burgi, p. 296.

cannot but be of great benefit both to the town and country about it (*a*). The free British fishery, established by act of parliament, revived the courage of the inhabitants, and has been in many respects serviceable to the place, more particularly in recommending it to the notice of the legislature, in consequence of which an act passed for repairing and improving the port; and to this purpose something has been done, and, from the character and industry of the trustees, much more is expected (*b*). Southwold is a member of the port of Yarmouth; and Walberswick, commonly written Walderfwick, is a creek to Southwold (*c*). At present these places are little regarded; but our posterity will, from experience, discover, that a navigable river and a good harbour deserve to be purchased here, though at a considerable expence. The bay before the town, anciently called from thence Soulbay, now commonly, though corruptly, Solebay, was a frequent station of the royal navy during the Dutch wars, and is memorable for two famous sea fights, the former June 3, 1665, and the latter May 28, 1672, both to the disadvantage of the Dutch (*d*). This bay was formerly bounded by Easton Nefs, so called, because supposed to be the most eastern point of this coast, and another cape to the south east of Dunwich; but the sea having removed these marks, it may now be said to have Covehith Nefs, with the Burnet, a sand lying before it, on the north, and Thorp Nefs on the south, a road very commodious for ships, and justly famous for its fishery, particularly of soals, which, in point of size and flavour, are not inferior to any caught upon the coasts of this island (*e*).

THE coast northward from hence, is much embarrassed with sands and shoals, and affords but one place more worth mentioning till you come to Yarmouth, which is Leostoff, a creek belonging to that famous port (*f*). This town is as variously written as any that I have met with, Laystoff, Lowestoffe, and in records, sometimes Lowestoke (*g*); it stands, as most of the towns before-mentioned do, upon an eminence, or, as Camden expresses it, hangs over the sea, which affords it a tolerable haven for barks and small vessels (*h*). The inhabitants subsist chiefly from their great industry in fishing for cod, lobsters, and mackrel, on their own coasts; which, with the Iceland fishing, the commerce arising from thence, and the

(*a*) Additions to the English translation of Camden's *Britannia*. *Atlas Maritimus et Commercialis*, p. 1. Cutler's *Coasting Pilot*, p. 5. — (*b*) Gardner's *History of Dunwich*, &c, p. 195, 196, 197. — (*c*) Molloy, *de Jure Maritimo et Navali*, p. 322. Crouch's complete view of the customs, p. 385. — (*d*) Echard's *History of England*, p. 820, 883. Burchet's *naval history*, p. 398, 403. *Lives of the admirals*, vol. ii. p. 243, 269. — (*e*) *Atlas Maritimus et Commercialis*, p. 1. Cutler's *Coasting Pilot*, p. 4. Gardner's *History of Dunwich*, p. 197, 258, 259. — (*f*) Molloy *de Jure Maritimo et Navali*, p. 422. — (*g*) *Camdeni Britannia*, p. 430. Speed's *Theatre of the British Empire*, fol. 134. — (*h*) Cutler's *Coasting Pilot*, p. 4. Gardner's *History of Dunwich*, p. 258, 259. Much also upon this subject from private information.

carrying the provisions, commodities, and manufactures, of their own country, supported also the other places on this coast. Harwich and Yarmouth are now the great marts, from their being capacious and commodious harbours; but one may, notwithstanding, take the liberty to doubt, whether it would not have been an act of national policy to have preserved (while practicable) these ports by a sea dike (*i*). Here is the pleasant, fruitful, wholesome, populous, and maritime county of Suffolk, which has at least twenty leagues of a sea coast, a million of acres, most of it rich land, producing a great variety of valuable crops, and abounding with all the conveniencies requisite to almost every kind of manufacture, to the forwarding of which nothing could so much contribute as the opening a few harbours, by which the fruits of the people's industry might be carried speedily, and at a small expence, to different markets. (*k*). Whether it is yet too late, by an extensive sea-wall, to retrieve these ports, and recover a part at least of the lands the ocean has devoured, and of course restore her port to the town of Orford, is a question I venture to propose, but must leave it to wiser heads to determine (*l*).

To the north of Yarmouth runs a point into the German Ocean, called Winterton Ness, beyond which the coast tends west north-west, then west, the shore low and flat, besieged with dangerous sands, which are reputed to have been as fatal to shipping as any that deform the coast of this our island (*m*). It is not strange that few places of any great note should be found on so inhospitable a shore; and yet it seems there were times in which it made a much greater figure. Their remaining ruins shew there were Roman stations in several places, which we know were to accommodate their cavalry, posted to defend the country against invasions (*n*). There must have been in those times, if not more, at least better ports than there are now, or there could scarce have risen any fear of such invasions. But in this respect, however it might happen here, the ancients unquestionably excelled the moderns, if not in science, for that I dare not affirm, or indeed incline to believe, yet in industry and public spirit, which enabled them to guard against the mischiefs arising from, and remedy the defects incident to, so unpleasing, and at the same time untoward and unpromising a situation (*o*). They knew how, by labour and

(*i*) This arose probably from not having a just notion of the benefits arising from commerce, from the difficulty of establishing an adequate fund, and from the great uncertainty, and confusion of the times. — (*k*) Speed's theatre of the British Empire, fol. 33. Fuller's Worthies under Suffolk. Additions to Camden. Atlas Maritimus et Commercialis, p. 3. — (*l*) But if this be attempted in any future period, it should be at the public expence, and not by taxes on the trade and navigation of particular places. — (*m*) Atlas Maritimus et Commercialis, p. 3. Brome's Travels through England, Scotland, and Wales, p. 128. Cutler's Coasting Pilot, p. 5. — (*n*) Camdeni Britannia, p. 346, 348, 350. Icenia, five Norfolkiae Descriptio Topographica. Ab H. Spelmanno, Esq. Aur. Baxteri Glossarium Antiquitatum Britannicarum, p. 45. — (*o*) Icenia, in Sir Henry Spelman's Posthumous Works, P. ii. p. 144, 147, 148. Salinon's new Survey of England, vol. 1. p. 85.

art, to make, where nature had omitted, havens; and they performed these useful works with so much skill and strength, that time and tides made but little impression upon them, so long as they continued under their inspection (*p*). These artificial harbours they stiled **Cothones**; and as they were entirely in their own power, their construction was equally solid and commodious; with entrances safe and wide, and where the support of commerce required it, they were so capacious, as to be able to contain the whole British navy (*r*).

It may be collected from Camden's expression, who was both a careful and correct writer, that he took the port at Cromer (for a port was once there) to be of this kind, and very probably a Roman edifice (*r*). The inhabitants struggled long, and with much expence, to support something of this nature, but to little purpose; even so late as 1736 they attempted to raise a sort of shelter; after much money spent however, their piers were borne down and carried away. But though they now land their goods on the bare beach, the people still preserving an hereditary inclination to commerce, have yet no less, and with sorrow I speak it, no more, than two vessels of about seventy tons each, and twenty-four fishing boats, employing together about sixty men; and yet, which shews success attends their spirit, this very slender business is increasing (*s*). Some of the villages upon the coasts have also a few fishing barks; but nothing more till you come to Clay and Blackney, lying west north-west four leagues, which carry their pretensions somewhat higher, being regarded jointly as a member of the port of Yarmouth (*t*). Clay is looked upon as the principal place; though Blackney gives name to that creek which supplies them both with an harbour. They have between them fifteen sail of small vessels, and it may be three-score fishing boats. It is thought they export twenty thousand quarters of malt and hard corn, and carry at least as much coast-wise. They bring in about six thousand chaldrons of coals; and the remainder of their trade consists in deals, barks, fir timber, pantiles, and iron (*u*). One would imagine that Clay was in a better condition anno Domini 1406, when James, son of Robert the Third, king of Scots, and himself afterwards King James the First, was brought in prisoner there, being taken at no great distance by a ship of force (*w*).

(*p*) Diodor. Sicul. Biblioth. Hist. lib. iii. Appian. in Punicis, lib. i. Festus in voce Cothonis. Serv. in Virg. Æneid. lib. i. P. Fournier, Hydrographie, lib. ii. cap. 2. — (*q*) Shaw's Travels, p. 262. Bochart. Chan. lib. i. cap. 24. Buxtorf. in voce katam. — (*r*) Britannia, p. 349. Icenia, p. 152. — (*s*) These particulars I was furnished with, in the most obliging manner, by a gentleman upon the spot, who had the best opportunities of knowing them. — (*t*) Additions to the English translation of Camden's Britannia. Molloy de Jure Maritimo et Navali, p. 322. — (*u*) These particulars I had also from private information, for which, as becomes me, I return my most grateful acknowledgments. — (*w*) Thom. Walsinghami Ypodigma Neustria, p. 566. Johannis de Fordun Scoti chronici Continuatio, p. 1162. Thomæ Otterbourne Chronica Regum Angliæ, p. 259.

WELLS, three leagues west by north of Clay, is a member of the port of Lynn, and much more considerable than any of the foregoing places (*x*), its inhabitants having at present about thirty vessels, three of which are upwards of an hundred tons; and, besides these, at least a dozen fishing boats, employing in the whole not fewer than two hundred men, and yet this place seems to be but reviving, there being evident marks that it was larger and of greater consequence in former times (*y*). Burnham Overy, two leagues further west by south, is accounted a creek to Wells, and is a little growing place, having six vessels belonging to it. But Brancafter, which is very near, and is also a creek to Wells, is now, and was formerly, much superior to it. This, as the best and most accurate critics agree, was a Roman station, called by them Brannodunum, and was the head quarters of the colonel of the Dalmatian horse, posted here under the command of the count of the Saxon shore, for the protection of the country. All circumstances occur in the support of this opinion; the name signifies a camp or fortress, seated on a hill, overlooking the sea; there have been coins, urns, and other antiquities, frequently found in the neighbourhood; but what is most to be relied on, is the admirable situation of the place at the Elbow, where the coast runs away south, and where the province was exposed to the depredations of pirates, dreaded in those, though unheard of in our days, on both sides (*z*). After a long period of oblivion, Branchester or Brancafter again lifts up her head, and has at this time thirteen sail of vessels, besides two or three fishing boats. Litcham, in Lynn channel, is a creek dependant upon that port, and the last on this shore we shall mention, having six sail of vessels, and is in a very thriving way. The corn and malt trade, to Holland particularly, for which they lie very conveniently, may be said to have preserved these ports, long declining, and some of them almost expiring.

THE land from Winterton Ness to Hapsburgh is very low, and has the appearance of a sea wall to defend it; though very probably it may be no more than an appearance. At all events, it is of very small service, the sea gaining little, if any thing, within this tract. But from Hapsburgh, north-west to Cromer, and thence to Sheringham, there are steep and high cliffs, from forty to an hundred feet perpendicular; against these (as against Dunwich) the ocean made its attacks, and with the same success (*a*). For, insinuating its waters at the bottom of these cliffs, dissolving the earth mixed with the stones, and thereby undermining the foundation, the port of Cromer was long

(*x*) Molloy de Jure Maritimo et Navali, p. 322. Crouch's Book of Rates, p. 284.—(*y*) These, with the particulars relating to the rest of the ports, were received from the same persons, whose assistance has been acknowledged.—(*z*) Camdeni Britannia, p. 350. Icenia, as before cited, p. 147, 148. Baxteri Glossarium Antiquitatum Britannicarum, p. 45. Salmon's New Survey of England, vol. i. p. 185.—(*a*) Camdeni Britannia, p. 349. Icenia, as before cited, p. 152. Gardner's History of Dunwich, p. 93. Additions to the English Translation of Camden.

since eaten up, and much of the adjacent shore demolished (*b*). In a series of years however this evil, instead of augmenting, is in a great measure redressed, not by industry or art, but by the settled laws of nature. For, in sapping this line of rocks, the large stones being too cumbersome for the waves to remove, they remain in heaps along the beach, by which the force of the strongest tides is broken in such a manner, that they serve as a wall, and protect the cliffs before which they lie from any farther depredations, except about Mundesly, and some other places, where the sea still sometimes borrows an acre or more at once (*c*). Proceeding westward from Weyburn Hope, and even after doubling the point, and turning south, the shore is low and flat, and the sea does them no harm. But about Hunstanton the cliffs appear again, and the land suffers in the manner before described (*d*). Along the whole coast, at convenient distances, lighthouses are erected for the benefit of navigation, and the greater security of shipping, more especially colliers, which being deep laden, are in the utmost peril, in case, while passing these perilous flats, the wind blows from the sea, of which the very fences of their inclosed grounds (made commonly of timber coming ashore from wrecks) afford too strong and frequent testimonies (*e*).

It was very truly observed by the learned Sir Henry Spelman, that the noble county of Norfolk is, in effect, an island, separated on the south from Suffolk by the rivers Waveney and the Lesser Ouse, having the German Ocean on the east, the north, and in part also to the west, being, for the rest, divided on that side from Cambridgeshire by the Larger Ouse, and, from Lincolnshire, by so much of the river Nene as runs from Wisbech into the Washes (*f*). The great extent of this county is such, that we may affirm it equal in size to the island of Majorca, larger than the dutchy of Parma, and not inferior in bulk to that of Modena. It has been remarked, that, in the compass of this isle, which is of an oval form, and its towns excellently well disposed, there are all the different sorts of soil that are to be found in England, perhaps, on this evidence, we might add in Europe; that of consequence all the variety of improvements which have been made elsewhere, have been gradually introduced, and most of them succeeded here; and that, by a judicious conjunction of these several husbandries, Norfolk is,

(*b*) This account is so reasonable in itself, so consistent with effects in both Suffolk and Norfolk, and shews so plain a remedy to be pointed out by nature, that there seems rather attention than art requisite, to apply it successfully both here and elsewhere.—(*c*) These circumstances have been confirmed, by private informations, from persons living on this coast, and attentive to such affairs.—(*d*) Camdeni Britannia, p. 350. Icenia, as before cited, p. 147. Salmon's New Survey of England, p. 191.—(*e*) English Translation of Camden's Britannia. Atlas Maritimus et Commercialis, p. 3.—(*f*) See the account of Norfolk, inserted in Speed's Theatre of the British Empire, which was written by Sir Henry Spelman; and the Additions to the English Camden, drawn out of his writings by Bishop Gibson, who also published the Icenia amongst Sir Henry's posthumous works.

at this day, considered as one of the best cultivated counties in the kingdom (*g*). Some say that there are estates, the income of which, by mere dint of judicious industry (the true philosophic extension of man's dominion as a rational being) has been more than doubled within memory, while the lands in general in this county have, in their value, greatly increased (*h*); neither are the inhabitants gainers only by the management of their lands; manufactures and the herring fishery are also prosecuted with like success, which have rendered the city of Norwich and the port of Yarmouth deservedly famous. After maturely weighing these circumstances, one cannot but wonder so little care has been taken of this extensive coast, or its ports left in so neglected a condition. It seems alike irreconcilable to the general maxims of policy, and to the particular spirit of improvement, by which the people of Norfolk are so much distinguished.

It is indeed true, that the ports of Lynn and Yarmouth, as we have already shewn, carry on a prodigious commerce (*i*), and may be therefore presumed to have in a great measure absorbed the business of those little havens, as Yarmouth hath evidently engrossed from them the herring fishery; and it may be concluded from thence, that if the commodities and manufactures of Norfolk be but exported, it is all one if this be done from two ports or twenty. I will, however, freely own, that I am not of this opinion; on the contrary, I am persuaded that the revival and recovery of these ports, would be in many respects as beneficial to Norfolk, as all the great acquisitions they have been lately making, and this without any great detriment to Yarmouth or Lynn. For, if we contemplate the situation of this county in general, as it is before laid down, and of those two great ports in particular, as lying at the mouths of large navigable rivers, it will evidently appear that they may, and indeed do, draw an immense trade from several other counties, as well as from those parts of this that lie upon these rivers, and therefore can suffer very little by the revival of those ports. On the other hand, we may know that the commerce at present possessed by them, though small, is nevertheless increasing; which proves that the consequences of modern improvements have, in a certain degree, shewn the utility of these ports (*k*). But if they were (as whenever this is done they must be) effectually opened and repaired, at the expence of the public, all the districts about them would be immediately cultivated to the utmost, and their inland trade and foreign exports quickly repay, in excise and customs, any sums that their recovery might cost. Besides, putting the immediate though certain and large profit

(*g*) Icenia, as before cited, p. 137. Fuller's Worthies in Norfolk, p. 246. Childey's Britannia Baconica, p. 103.—(*h*) Asserted by several authors who have written upon the Norfolk husbandry, and confirmed to me, by private information, from persons in this county.—(*i*) The Political Survey of Great Britain, vol. i. p. 138, 143.—(*k*) By this, I mean the use that may be made of them, which certainly would be far greater, if these havens were more commodious than they now are.

of this county out of the question, the having a few sea ports here capable of receiving ships of burthen, would be in many respects very convenient, and is in regard to the deep laden colliers, who cannot avoid passing these coasts, absolutely necessary (*l*).

AFTER crossing that large bay or firth which we stile the Washes, called by the ancients *Metaris Æstuarium*, though a learned critic, to bring it nearer the British words, from which he thinks it derived, would have us read *Mentaris*; the main land of Lincolnshire presents its extended coast, in the form of a bow, to the German Ocean, upon which it gains in many, and in some places loses (*m*). In general it lies low and flat, or with a small declivity to the east, for which an ingenious and probable account has been given by an intelligent writer, who is a native of this county, and has been very attentive and assiduous in his observations (*n*). In the opinion of Bishop Gibson, Sir William Dugdale (tho' he did not intend it) has proved, that part of this county called Holland, is an acquisition from the Ocean, made since the Romans quitted Britain (*o*). But the inquisitive author before-mentioned, having established the contrary opinion, that the Romans were actually inhabitants here, from the numerous relicks of that glorious nation, such as urns, medals, and other incontestible evidences, declares it as his sentiment, that they recovered and secured this country, and that no very long time before they abandoned Britain (*p*). However this may be, most certainly this coast has suffered great changes in succeeding ages, of which some instances may not be improper, or unacceptable to the curious reader. Wrangle or Wrangel (in the Wapentake of Skirbeck, in Holland) now a village, between two and three miles from the sea, was an haven in the reign of Edward the Third, of note sufficient to send one vessel to that monarch's fleet (*q*). Waynfleet, in Candleshoe Wapentake, in Lindsey, was a more considerable port, of which we have still many notices (*r*), and some vestiges are said to be visible; from whence we might be tempted to think it was constructed by the Romans, and of the kind which we have already described. But the current of fresh water from the Fens, which passed through, and scoured their haven, being diverted to Boston, that became henceforward the famous sea port, to which, while it remained any thing, Waynfleet continued a creek; but still retains thus

(*l*) *Atlas Maritimus et Commercialis*, p. 3. — (*m*) *Claudii Ptolemæi Geograph. lib. viii. cap. 2.* *Camdeni Britannia*, p. 391. *Baxteri Glossarium Antiquitatum Britannicarum* p. 176. He thinks it a contraction of *Ment ar icl*, i. e. the mouth of the river. — (*n*) *Stukeley's Itinerarium Curiosum*, p. 3. where he ascribes it to the diurnal rotation of the earth — (*o*) *Additions to the English translation of Camden's Britannia.* — (*p*) *Stukeley's Itinerarium curiosum*, p. 2. *Philosophical transactions of the Royal Society*, No. cclxxix. p. 1156, 1159. *Ray's Physico-Theological discourses*, p. 215. — (*q*) *Leland's Itinerary*, vol. vii. p. 204. See the record so frequently cited from *Hakluyt*. — (*r*) *Leland's Itinerary*, vol. vii. p. 204. *Madox Firma Burgi*, 64. See also the list of King Edward's navy

much of its former grandeur, that it is the neatest and most compact town thereabouts (*s*). A plain indication of what commerce would effect, if, industry, skill, and public spirit concurring, this was restored, and some other tolerable ports could be opened upon this coast.

THEDDLETHORPE, Numby Chappel, and Saltfleet, are yet stiled creeks to Boston (*t*). This last, Saltfleet, was, in the so frequently mentioned reign of Edward the Third, and much later, a very considerable haven (*u*), though now gone to decay; notwithstanding which they ought to be remembered, that some time or other they may be recovered. Grimesby is the first, indeed (after Boston and Spalding) the only place of note upon the coast, but by no means of that note it once was; for, lying as it does, at the very entrance of the Humber, being one of the oldest corporations in the kingdom, and having formerly a large and good port, the inhabitants held it in fee farm at the annual rent of fifty pounds, which, in those days, was far from being a contemptible sum (*w*). In the so much celebrated reign of Edward the Third, it made a great figure among the northern ports, and furnished eleven ships to that monarch (*x*). But, since that time, the port through want of care, or, more probably, through want of ability in the inhabitants to disburse the sums necessary to preserve it, is quite choaked up. However, there is still a pretty good road before this town, which has saved it from sinking to the degree that other places have done. It sends two burgesses to parliament, and is dependant, as member, upon the port of Hull (*y*): Barton was anciently an haven, though now it is remarkable only for the ferry fixed here over the Humber, which is computed to be about six miles broad (*z*). We have observed that the sea has encroached, as well as been incroached upon, in this county, of which one instance is Skegnesse, now dwindled into a very small village, once a large walled town, with a good harbour, till, as my author very emphatically expresses it, walls, town, church, and all, were eaten up by the sea (*a*); from which it stands at present notwithstanding, somewhat more than a mile. The reader may think these are reproaches, rather than recommendations, of an insular situation; but let him remember, these incon-

(*s*) Stukeley's *Itinerarium curiosum*, p. 27. — (*t*) Speed's *Theatre of the British Empire*, fol. 64. Molloy de Jure Maritimo et Navali, p. 322. Crouch's view of the British Customs, p. 383. — (*u*) Leland's *Itinerary*, vol. vii. P. ii. p. 204. Speed's *Theatre of the British Empire*, fol. 64. Hakluyt's collection of voyages, vol. i. p. 120. — (*w*) Magn. Rot. 1^o Joh. Rot. 10. b. m. 2. Linc. Magn. Rot. 14. Joh. Rot. 12. b. Linc. Madox's history of the Exchequer, p. 349 col. 2. — (*x*) See the roll in Hakluyt's collection, as before cited. — (*y*) Speed's *Theatre of the British Empire*, fol. 64. Molloy de Jure Maritimo et Navali, p. 323. Crouch's view of the British Customs, p. 384. — (*z*) Hakluyt's collection of voyages, vol. i. p. 120. Speed's *British Empire*, fol. 64. Additions to the English translation of Camden's *Britannia*. — Leland's *Itinerary*, vol. vii. P. ii. p. 204.

veniencies are not peculiar to islands, and that, if a small part of those immense sums, spent in the wars which we have engaged in needlessly, upon the continent, since the Norman conquest, had been properly laid out in securing and improving our own coasts, these accidents had never happened; and that, whenever we are wise enough to consider these points with the attention they deserve, these just effects of past indolence may still be corrected.

THESE, however, are in themselves points of too great consequence to be lightly passed over; and besides, what has been already delivered, affords the fairest opportunity of explaining thoroughly, and demonstrating clearly, the importance of the doctrine maintained in this chapter, from a perfect understanding of which, the redress before-mentioned, and the complete and absolute improvement of this noble and spacious country, can only be hoped for or expected. Lincolnshire, in point of size, is the third county in South Britain, being commonly computed one hundred and eighty miles in compass, and having forty leagues of coast (*b*). The west part of this ample territory, the district about Lincoln, and in general where-ever it lies high, is on all hands allowed to have a mild and wholesome air. Experience teaches the same of all the rest, since, in the lowest and worst parts of the shire, as far as I could ever observe, the people are as robust, have as many children, live to as great ages, and have as quick wits, and as sound sense (*c*), as any in this island. In point of soil and produce it has all that prudence would desire, or even avarice could well demand. In the high country, grain of every sort, and in great quantities. Between that and the fens, lie the most luxuriant and nourishing pastures, in which are fed black cattle, sheep, and horses of the largest size, and best qualities. In the low, variety of fish and fowl, excellent in their respective kinds, and in the utmost plenty. Besides all this, hemp, flax, rape, cole-seed, and many other things of great value in themselves, and capable of being rendered incomparably more valuable by labour (*d*). In a country like this (indeed where is there another like it!), abounding with the necessaries, abounding with the conveniencies of life, which draw many who have but small fortunes thither, to enjoy them; abounding too with the very best raw materials, wool, hemp, and flax; Lincolnshire has very few manufactures, and not many people. As extensive at least as the provinces of Holland and Zealand, taken together; it may have about one-fifth of the inhabitants, though in itself perhaps, all circum-

(*b*) Camdeni Britannia, p. 398. Speed's Theatre of this British Empire, fol. 63. Fuller's Worthies of England, p. 144.—(*c*) Doctor Fuller, in his worthies, p. 251, has very well remarked, that Doctor John Whitgift, Archbishop of Canterbury; William, Lord Burleigh, Lord High Treasurer; Edward, Lord Clinton, High Admiral; Peregrine, Lord Willoughby of Eresby, who commanded the English troops in the Low Countries; were contemporaries, and all natives of Lincolnshire.—(*d*) See Mr. Christopher Merret's large account in the Philosophical Transactions of the Royal Society, No. ccxiii. p. 343, 353. Additions to Camden's Britannia. Stukeley's Itinerarium Curiosum, p. 16, 17, 18.

stances duly considered, very capable of supporting, as many as in both those provinces, in a better manner, and incomparably more at their ease (*e*).

IN regard to this thinness of people, and defect in reference to possible improvements, both seem wholly, or at least in a great measure, to be owing to this want of ports upon the coast. Lincolnshire is extremely well watered by some deep and commodious rivers; so that, from the very middle parts of the county, all sorts of bulky goods may be conveyed down the Witham or the Welland, to Boston and Spalding, or by the Trent, to the Humber; that is, to the great port in the Humber, which is Hull (*f*). Boston and Spalding are in Lincolnshire, but (the latter more especially) in a corner. Hull is not in the county at all. Thus a very large proportion of the trade of Lincolnshire centers elsewhere; and this trade being mostly carried on in raw and gross, though very valuable commodities, the chief profit arising from them falls into the hands of those by whom they are manufactured (*g*). Hence in those parts, which do not lie so advantageously for this kind of carriage, we find the inhabitants apply themselves to breeding black cattle, sheep, and horses (*h*); and, in fact, what are these, or the produce of their decoys, or fish-ponds, but inventions to serve other (but still domestic) markets with goods easy of carriage, or which can carry themselves (*i*)? This arises purely from an attention to immediate conveniency and present profit, which will be always the objects of private persons, and indeed must be so; it is the business of the public, as the public is to reap a large share of the benefit which will necessarily follow from applications of another kind, to put the proper means of succeeding in them, as much as possible, at least as much as the means before-mentioned, in the power of private persons (*k*). As it is, all these improvements are already pursued in a manner agreeable enough to the interests of individuals; that is, with little labour bestowed on much land by few people (*l*). But this certainly is not the public interest; for if, in this country, here were twice or thrice the number of people there now are, the price of provisions would not be at all augmented; the value of land would be much raised, because all sorts of lands

(*e*) D'Audiffret Historie et Geographie Ancienne et Moderne, liv. iii. chap. 3. Sir William Petty's Political Arithmetic, p. 163. Templeman's Survey of the Globe, plate vi.—(*f*) Additions to Camden's Britannia. Stukeley's Itinerarium Curiosum, p. 89, 90, 91. Atlas Maritimus et Commercialis, p. 3.—(*g*) It will appear hereafter, that what is said in the text does not arise from any partiality to Lincolnshire, or prejudice to any other county, but from a view of shewing what may be further done for improving the land, and increasing its inhabitants.—(*h*) Fuller's Worthies of England, p. 149. Additions to the English Translation of Camden's Britannia. Beawes's Merchant's Directory, p. 581.—(*i*) Stukeley's Itinerarium Curiosum, p. 19, 17, 18. Additions to the English Translation of Camden's Britannia. Brome's Travels over England, Scotland, and Wales, p. 137.—(*k*) Georgii Hornii, Hist. Nat. lib. iv.. De Witte Gronden en Maximen van de Republieck van Holland, i. deel cap. 17, 24. Sir William Petty's Political Anatomy of Ireland, p. 120, 131.—(*l*) The greatest secret, in true policy, is to direct the stimulus of private interest to the accomplishment of public purposes.

would be exceedingly improved; and the very excises, and other taxes, which such an increase of inhabitants must pay (and earn too before they could pay) would amount to more than the whole land-rents of this large country, as they stand at present; and, in respect to these, instead of being endangered or decreased, those now precarious would be secured, and the rest very soon doubled (*l*).

IN remoter ages this country was more considered, and, regard being had to the number of people in this part of the island, more fully inhabited (*m*). The Britons either found or made it a very fit place for their retreat. I say this, because I see nothing that can be called certain as to the origin of the fens: They might be such naturally, which would invite the Britons to retire into these parts, as to an effectual shelter: Or the Britons might retire to this as a woody country, and by cutting down timber, and impeding the course of several great rivers, procure those extensive marshes, which were the only fortifications that entered into their system (*n*). Which ever was the fact, it brought the Romans under a necessity of setting a great many fortresses in, and taking a great many unusual precautions for, the security of this country, and maintaining themselves in all parts of it, as from incontestible proofs, drawn from their remains, it is most unquestionable they did (*o*). From these views, they not only carried, as their usual custom was, military roads through it, but by an inland navigation also, with incredible pains provided that corn might by this method be constantly and commodiously supplied to their remotest northern garrisons (*p*). All this however did not hinder their great attention to the coasts; where they constructed ports, had several strong places, and took the same prudent preparations to resist any invasions from the barbarous nations abroad, as they had done wise measures to be rid of the perpetual inroads of the subdued Britons at home (*q*). When they had performed all this, they applied themselves to recover lands overspread by the ocean in ages long before, and to their labour in that point, we owe those treasures which have been digged up in places, from

(*l*) To prove this by deduction would be long and tedious; but if the reader will reflect on what has been said in a former chapter of the improvements made in the united provinces, he will discern that it is not only a thing in its nature possible, but also that it is very practicable.—(*m*) Camdeni Britannia, p. 403. Stukeley's Itinerarium Curiosum, p. 7, 8, 11, 13. Salmon's New Survey of England, p. 237, 276. Cæsar de Bello Gallico, lib. v. Strabonis Geograph. lib. iv. p. 200. Diod. Sicul. Biblioth. Hist. lib. v. cap. 9. p. 209. Pompon. Mela de Situ Orbis, lib. iii. cap. 6. Dio Nicæus, ex Xiphilini Epitome.—(*o*) Camdeni Britannia, p. 401, 403, 405. Baxteri Glossarium Antiquitatum Britannicarum, p. 65, 66, 92, 149, 239. Salmon's New Survey of England, p. 237.—(*p*) Camdeni Britan. p. 404. Stukeley's Itinerarium Curiosum, p. 7, 8, 11. Salmon's New Survey of England, p. 259, 268, 275.—(*q*) Roman urns, arms, coins, altars, and other remains, have been discovered at Whaplode, Spalding, Fleet, Boston, and so along the coast northward quite to the Humber.

whence if they had not expelled the sea, they could not have been settled (*r*). The reader will excuse my carrying him so far back, not with any view, I dare assure him, of making a parade of learning, but that he might see what a regular scheme of policy must once have prevailed in these parts, and, at the same time, have a clear notion how, in a series of ages, and by a concurrence of some unforeseen, and it may be unavoidable events, things came into the situation in which our immediate ancestors beheld, and we at present behold them.—But neither is this all, for by pursuing this method, we avoid both the prolixity and uncertainty of argument, and learn concisely and clearly, from the testimony of facts, what a tedious chain of reasoning would scarce ever persuade us to believe.

But to proceed :

THE Saxons, who never failed to pay a due regard to the choice made by the Romans of cities, ports, and fortified posts, took the same care the Romans had done, to the utmost of their power, of the most considerable places in this country, which made part of their kingdom of Mercia, and were particularly attentive to Lincoln (*s*); which, in spite of the mischief done by the Danes, they left, as a grave historian tells us, a noble, rich, and populous town, when the Normans subverted their constitution; and the record of Doomsday confirms this, and that it was then a place of great trade by land and water, having nine hundred burghesses, and enjoying extraordinary prerogatives (*t*). But tho' favoured by many of their monarchs, the very genius of the Norman government was fatal to this city and county (*v*). A multitude of houses were demolished to make room for a castle, which, instead of defending, brought ruin on the city by frequent sieges; so that it gradually became the melancholy monument of its own splendor; and it seems scarce credible now, that here were in antient times more than fifty parish churches, tho' the spacious cathedral yet standing, the apparent ruins of some, and the fragments of other churches, which have been long decayed, give some evidence to the tale (*w*). The same calamities, natural concomitants of military government, produced like scenes in other parts of the shire; and as all its adventitious grandeur depended absolutely on such a due circulation of pro-

(*r*) See Mr. Abraham de la Pryme's account of Roman antiquities in Lincolnshire. Philosophical transactions of the Royal Society, vol. xxiii. no. 279. p. 1156. Stukeley's Itinerarium Curiosum, p. 11.—(*s*) Chron. Saxon. p. 28, 114. Bedæ Hist. Eccles. lib. ii. cap. 16. lib. iv. cap. 12. Aluredi Beverlacensis Annal. lib. vi.—(*t*) Guliel. Malmesbur. Hist. lib. iii. Henr. Huntindon Hist. lib. vii. Camdeni Britannia, p. 405.—(*v*) Chron. Saxon. p. 227, 238. Lambard's Historical and Topographical Dictionary, p. 181. Leland's Itinerary, vol.—(*w*) Girald. Cambrensis. de Vitis Episcoporum Lincolnienis, capiv, xxiii, xxvi. Leland's Itinerary, vol. i. p. 32, 33, 34. See the Article Lincoln, in Collier's Geographical and Historical Dictionary,

perty, as supported industry generally and in every corner, when the attention necessary to sustain this ceased, or acted but by starts, that uniform system gave way. The ports on the coast were, thro' want of attention, or power in the inhabitants to prevent the mischief, choaked up; the land waters overflowed; and our learned and industrious antiquary's particular account of the fenny part of Lincolnshire, shews us what it was in his days (*x*). In the reign of Charles the First the Roman system revived, and the illustrious family of Bedford projected the noble and national scheme of effectually draining the fens; from whence, if an unnatural opposition of misguided people had not prevented it, this had been rendered a land of Goshen; as it was, from thence all the subsequent improvements, such as they are, have sprung (*y*). But to complete these, and to render this county as rich and flourishing as nature has designed it, public wealth must be disbursed, and public authority employed, to perfect the draining, secure the recovered lands when drained, and by restoring some of the decayed ports, and connecting them with the principal market towns through the whole county, by substantial roads, open the eyes of the people to those advantageous pursuits, which, by rewarding their industry, would quickly attract numbers to share in their felicity (*z*).

IN order to establish this very important point, let me farther observe:

THE greater number of the most ancient, and, in their day, the most considerable towns in this county, are within ten or twelve miles of the sea. This choice could be only made from the trade which was in those times carried on, from ports that are now lost. Some of these places, low and despicable as they are, have vestiges and ruins, which evince their former prosperity, of which several bear, in their public buildings, (particularly in their churches) more lasting remains (*a*). While commerce continued, these towns near the sea flourished; and gradually sunk, as it decayed. The better sort of the inhabitants, as being in a condition to live elsewhere, when this was first felt retired; the ruder staid in the declining villages, and being intent only on obtaining a subsistence, let cuts, drains, sewers, sluices, and every thing else, fill up, fall down,

(*x*) The best way to form a judgment of the miserable change of this country, is to consult the description of Thorney Abbey by William of Malmesbury, cited by Camden himself, and then compare it with his own description of the fens—(*y*) See Sir William Dugdale's History of Imbanking. The History of the Great Level, with Sir Jonas Moore's Map. And the several Statutes for draining the Fens.—(*z*) See a little Poem, intitled, "A true and natural description of the Great Level of the Fens;" in which, tho' the Poetry be very indifferent, the Facts are clearly represented, and the Improvements set in a true and just Light.—(*a*) Camdeni Britannia, p. 401. Fuller's Worthies of England, p. 151. Tanner's Notitia Monastica, p. 117. Stukely's Itinerarium Curiosum, p. 8. 11, 12, 13. Salmon's New Survey of England, p. 237.

or moulder away (*b*). Their tempers altered with their conditions; indolent, in the midst of a rough plenty, they ridiculed those improvements for which they had no relish; were the first who stirred in the civil wars, and destroyed the noblest and most costly works ever undertaken in the fens: And when national madness subsided, they were the last who were reclaimed, and then all was to begin again (*c*). Much has been since done, yet there remains much more to do. Grazing and decoys may retain those there are, but they will not attract new colonies of people. A port or two recovered, which with some expence might be brought about; or some new ones, as at Totney, to which barks come of an hundred tons laden with coals and salt, being opened and rendered secure, every-thing proposed would follow with ease (*d*). The frequent sight of ships would excite the turning hemp into cables, ropes, and sail-cloths: fishermen and sailors would wear homespun shirts and coats; oxen would plough to produce bread and biscuit; there would be a demand for beef at home; and when once killed, their tallow and hides would find their proper use of course. This would again alter the manners of the people, and the improving all their fen-grounds to the utmost, being palpably every one's interest, nobody would oppose or impede it (*e*). Thus, what might perhaps have admitted of some doubt when proposed in gross, appears incontestable when examined in detail; and what, in order to its execution, seems to require prodigious force and perpetual attention, is shewn to have such a natural spring and direction, that in a great measure may dispense with both.

It may be objected that these improvements might only change the present appearance of things, and aggrandize one part of the county by impoverishing the other. But nothing like this could happen; the grain, and other staple commodities of the upland part of the shire, would come to a nearer market; and the trade, now carried on in raw and gross materials, would be then converted into manufactures, and much increased. We may add, that grazing is getting ground at present even in those quarters; and that inland navigation is far from thriving, in consequence of the choaking up the sea ports; so that in reality such a change would be equally useful,

(*b*) Sir William Dugdale's History of Imbanking and Draining, chap. xliii. History or Narrative of the great Level of the Fens, p. 9. The Reverend Mr. de la Pryme's Account of Hatfield Chace, before cited from the Philosophical Transactions of the Royal Society.—(*c*) Colonel Lilburne and his associates gave just the same disturbance to the parliament, that Cromwell's faction had done to the Earl of Bedford and the crown.—(*d*) There are several, and some not inconsiderable streams, which fall into the sea between Boston and Grimsby, that might be very effectually applied to scour such ports, and might be also of use (if deepened) in receiving the waters from, and consequently draining, the adjacent lands.—(*e*) In this manner all such like improvements have been brought about (with far less advantages) in other places, and why not here?

and at the bottom is equally necessary, to all parts of the county (*f*). If it should be said, these would be temporary benefits, drawn from other places for a while, and which, in a series of years, by the like management might be drawn from hence; the answer is short. Lincolnshire is a vast county abounding every-where with provisions, and yet capable of affording much larger quantities; having also materials for the most profitable handicrafts; so that if there were five times the number of inhabitants, they would be in no danger of wanting either meat or work: and where living is cheap, labour must be so; and working on their own staples, humanly speaking, while industry subsisted, these advantages, tho' easily attained, could hardly ever be taken from them; more especially as a century or two might elapse, before the accessions made by draining would be compleated (*g*). To this I am tempted to add what has been all along in my mind, that the opening and improving a few ports on this coast, would be of prodigious service to the coal trade, as it would afford the large ships employed therein commodious shelter in their outward and homeward voyages, and so make those places the objects of their hope, which, from the frequent losses they have sustained, have been hitherto their terror. But it is highly seasonable to put an end to reflections, and to return to facts and our survey of the coast; from which I have made a long, but I hope not a useless digression.

On the opposite side of the Humber, in the county of York, several ports have suffered from the sea. Heddon, Haydon, or Hedon, constituted a free burgh by King John, in succeeding times so enriched by trade as to have three parish churches, of which, in our own, there remains but one, once possessed of a good harbour, has now scarce any thing that is like a harbour at all (*h*), tho' it is still a corporation, and as such sends two members to parliament. Patrington, the old Prætorium as many think, has yet some small share of trade (*i*). In this wapentake of Holderness, several ports that appear to have been considerable from our records, are no longer to be found. The sea that rendered them once significant, has, in a long series of years, by unresisted depredations, swept them away (*k*). North from Spurnhead, the promontory that makes

(*f*) From the same natural causes by which, thro' indolence and inattention, these ports have been lost, the recovery and improvement of them would be found easy. For as in Ireland, so in Lincolnshire, industry and sagacity may effect almost any thing; the very nature of the country conspiring with their endeavours.

(*g*) It is remarkable, that in all the great projects for draining, when the undertakers have been successful the common people have grudged the stipulated recompence; which should be guarded against, by giving another kind of recompence than has been hitherto practised.

(*h*) Cart. 9. Edw. iii. n. 53. per Inspe. Leland's Itinerary, vol. i. fol. 68, 69. Camdeni Britannia. p. 579.—(*i*) Leland's Itinerary, vol. i. fol. 68. Camdeni Britannia, p. 579. Additions to the English Translation of Camden's Britannia. Baxteri Glossarium Antiquitatum Britannicarum, p. 199. Salmon's New Survey of England, p. 583.—(*k*) As for instance, Hornsey, Drypool, Friskmere, Hide, and Ravensere or Ravenspugh.

the further boundary of the Humber, the coast is high, and there are many safe roads. Brillenden, Bridlington, or Burlington, is an ancient sea port (*l*), covered by the point of land called Flamborough Head from north-west and north-east winds, secured and improved in many respects in succeeding ages, and in right of these improvements is become a corn market. The quay, well inhabited, lies near two miles from the town, and is, properly speaking, the port. About sixty years ago an application was made to parliament for obtaining some assistance from the public, to prevent the decay of this harbour, and to render it more useful to the navigation northwards; for accomplishing of which, a duty was laid of a farthing a chaldron upon coals loaded in the port, or in any of the members of the port, of Newcastle, for seven years (*m*); which duty expiring, was again revived in the reign of his late majesty King George the First, and soon after, for lengthening the two piers and other purposes (the amount of the former duties being found insufficient) several others were imposed (*n*), which still subsist, in virtue of several statutes since passed for that intent (*o*). In consequence of these grants Burlington is become much more considerable, has a custom-house, and a proper appointment of officers, is regarded as a member of the port of Hull; and, in conjunction with that, has contributed not a little to the improvement of land in the East Riding (*p*).

BEYOND Flamborough Head, a rocky promontory of a round figure projects into the sea, by which it is surrounded on all sides except only on the west; on the summit of which rock was built the castle, and on the side of which stands Scarborough (*q*). It seems to have been a place of some note even before the conquest, soon after which, as difficult a task as it must have been, a fortress was here constructed. This castle was rebuilt, as a place capable of commanding the country adjacent, by King Henry the Second, agreeable to the martial spirit of that age (*r*). In the reign of Edward the Second it was remarkable as a haven: Afterwards it grew of much more consequence, and was secured by a pier, which became ruinous in the reign of King Henry the Eighth, when provision was made by statute for its repair and support. In proportion as our constitution improved, and the spirit of commerce revived, the importance of

(*l*) Leland's Itinerary, vol. i. fol. 68. Lambard's Historical and Topographical Dictionary, p. 49. Camdeni Britannia, p. 579.—(*m*) Stat. 8. Wil. III. c. 29. §. 1.—(*n*) Stat. 1. Geo. I. cap. 49. 5. Geo. I. cap. 10. by which additional duties are granted to June 24, 1755.—(*o*) Stat. 26. Geo. II. by which these duties are continued, as well the old as the new, to June 24, 1790.—(*p*) Atlas Maritimæ et Commercialis, p. 4. Molloy de Jure Maritimo et Navali, p. 323. Crouch's View of the British Customs, p. 384.—(*q*) Lambard's Historical and Topographical Dictionary, p. 330. Camdeni Britannia, p. 586. Speed's Theatre of the British Empire, fol. 80.—(*r*) Gul. Nubigenis Hist. lib. i. p. 113, 114. Rogeri de Hoveden Annal. p. 565. Lelandi Collectanea, tom. i. p. 122.

Scarborough was thoroughly discerned, and the old works were cleaned and amended (*f*). But it is in our times, and in virtue of assistance wisely given by the legislature, that Scarborough is become the most secure and commodious haven between Newcastle and the Humber; not more to the advantage of the inhabitants, and benefit of the whole north riding of the opulent county of York, than the general convenience of the navigation on this side of the island, which has been long of very great, and is growing daily of far greater importance.

IT will not a little contribute to clear the argument maintained through this chapter, if we add a few remarks to those we have already made upon this place; the rather, because as none is more generally known, none can render such remarks better understood. Fishing was the first support of the town, and continues to be so still, in a very conspicuous degree to the lower class of inhabitants, who are equally industrious and dextrous in taking cod, ling, whiting, soles, lobsters, and other fish, which turn to good account. This is very beneficial to Scarborough, as commonly the fishermen marry young, because their wives and children are very useful to them in their business; and it is observed they both generally have, and usually breed up, very numerous families. Boat and ship building is the natural, and indeed only manufacture of the place; but most of the wealthy inhabitants are owners of ships, of which they have some hundreds belonging to them, chiefly employed in the coal and coast trade. We must join to this, the profits arising from the great and yet growing annual resort to their medicinal waters, the season lasting about thirteen weeks, and leaving behind at least as many thousand pounds, which being laid out chiefly on the produce of the neighbouring farms, must have a signal effect upon their cultivation; and thus the connection and consequences of very different kinds of industry are brought into a proper point of view, and shew how they may be best drawn to concur for the people's benefit, and the improvement of the country (*u*). The town of Scarborough is an ancient corporation, sends two members to parliament, and is regarded in its commercial capacity, as a member of the port of Hull; but with a custom-house and proper officers in the town (*w*). Robin Hood's Bay lies between this place and Whitby; and here is a commodious fishery, good anchoring in six or eight fathom water, and the land high; so that it might be very serviceable to navigation, if it was not unfortunately quite open

(*f*) Pas. Brevia. 9 Edw. II. Rot. 35. b. Stat. 37. Hen. VIII. cap. 14. §. 1. Leland's Itinerary, vol. i. fol. 66, 67, 68. Comdeni Britannia, p. 486. Speed's Theatre of the British Empire, fol. 80.—(*t*) See the Article of Scarborough in Collier's Dictionary. Stat. 5. Geo. II. cap. 2. §. 1. 25 Geo. II. to explain, amend, and render the former more effectual.—(*u*) These particulars from private information; more especially from a worthy gentleman of Lincoln's Inn, perfectly well acquainted with the place.—(*w*) Willis's Notitia Parliamentaria, vol. i. Preface p. xiii. Molloy de Jure Maritimo et Navali, p. 323. Crouch's Complete View of the British Customs, p. 384.

to the east wind, by which ships seeking refuge here, might be exposed to great danger (*x*).

WHITBY is so remarkable an instance that industry, application, and perseverance, when steadily and thoroughly exerted, will overcome all obstacles, and fix plenty and prosperity to the spot where people capable of exerting them are found; that from a persuasion nothing can contain more useful instruction, or convey clearer ideas of the most effectual means of improving a country, that is, raising it, however unpromising, into a state of maintaining a multitude of people in the enjoyment of all the necessaries and conveniencies of life, than the history of the progress of a maritime place, I have selected this, as one, which, in this respect, may in a very particular manner answer the purpose, by discovering with what facility, and, the importance of the thing considered, with what celerity, such a change is produced (*y*). A change of no less consequence, than from a small village to a large town; from a fishing hamlet to a place of resort; and, in reference to foreign commerce, a flourishing sea port (*z*).

THE town of Whitby owed its original to an abbey, founded here by St. Hilda, in which was brought up as a nun Elfleda, daughter to Oswy the victorious King of Northumberland, A. D. 650 (*a*). The Saxon name of the place was Streone-sheal or Strenshāl, signifying a bay or inlet of the coast, or rather a conspicuous building on the coast (*b*). Afterwards it was called Presteby, or the habitation of clergy, and then Hwytby, next Whiteby, and now Whitby, that is, Candidus Vicus, or more literally the White Dwelling, from the colour of the adjacent cliffs (*c*). The abbey was ruined, and the town also, by Hinguar and Hubba with their Danes (*d*); and when, in consequence of their convents being restored, the place began a little to revive, the Norman conquest, and the troubles that ensued, brought it almost as low as ever (*e*). It was granted in order to its re-foundation, about 1067, by Walter

(*x*) Leland's Itinerary, vol. i. fo. 57. Camdeni Britannia, p. 585. Speed's Theatre of the British Empire, fol. 80. Atlas Maritimus et Commercialis, p. 4. Cutler's Coasting Pilot, p. 6. — (*y*) The reader will perceive, that all these extraordinary things have been brought about within the space of two centuries at the very most. — (*z*) See the annotations on the English translation of Camden's Britannia. The short article of Whitby in Collier's Dictionary. Brome's Travels over England, Scotland, and Wales, p. 155. — (*a*) Bedæ Hist. Eccles. Gent. Anglor. lib. iii. cap. 24. Polyd. Virgil. Hist. Anglic. lib. iv. Tanner's Notitia Monastica. p. 248. — (*b*) Chronicon Saxonum, p. 45. Lambard's Historical and Topographical Dictionary, p. 401. Baxteri Glossarium Antiquitatum Britannicarum, p. 109. — (*c*) Ex Registro Chartarum Abbatiz de Whitby, fol. 139. b. Lambard's Historical and Topographical Dictionary, p. 401. Baxteri Glossarium Antiquitatum Britannicarum, p. 109. — (*d*) Lelandi Collectanea. tom. i. p. 19. Polyd. Virg. Angl. Hist. lib. v. Lambard's Historical and Topographical Dictionary, p. 401. — (*e*) Lelandi Collectanea, tom. i. p. 537, 538. Ex Registro Catarum Abbatiz de Whithy, fol. 139. Lambard's Historical and Topographical Dictionary, p. 401.

de Percy, to Serlo and some Benedictine monks (*f*); and gradually recovering its former state, continued in a flourishing condition to the general suppression of monasteries, at which juncture it was valued at five hundred pounds per annum (*g*). It is generally supposed that all this time Whitby remained but little better than a village; yet that was not the custom of the monks (*h*). The place stood commodiously in some respects, and they knew the value of every kind of situation, and commonly made the most of it; as it is certain they did of the country near this abbey, tho' none of the best, from the marks of its being once arable land, still visible on their moors (*i*). We may therefore conclude, that Whitby belonging to them was not overlooked, or any of its few natural advantages slighted; and that this was really the case, and the village already grown pretty considerable while under their jurisdiction, appears from hence, that soon after the dissolution, Whitby was, in the opinion of Leland, a large fishing town with a haven, which the inhabitants were even then improving, by the construction of a pier out of the stones furnished by the fall of an adjacent cliff (*k*); which shews the spirit and genius of the people, that being now left more to themselves, began already to point out what active industry, just œconomy, and a steady attention to the small number of conveniencies they possess, have since to so high a degree enabled them to acquire.

THIS town stands on both sides of the mouth of the river Eske, which runs here with a full and rapid stream into the German ocean (*l*). The country round it is none of the best, for tho' tolerably cultivated for three or four miles, in the vicinity of Whitby, yet the moors beyond that, on every side seem so inhospitable, and are generally thought so barren, that they are at present left in their neglected useless state of morafs, as incapable of culture. We are however assured, as has been before hinted, that in former times improvements reached to a greater distance, which is highly probable; for beyond all doubt, the land, as well as the sea, furnished the inhabitants, immediately after the destruction of their abbey, with the first means of carrying on a coast trade. This they did in small vessels, freighted chiefly with butter, tallow, and fish, which seem to have been their staple commodities during

(*f*) Lelandi Collectanea, tom. iii. p. 37. Monasticon Anglicanum, tom. i. p. 71, 988. Tanner's Notitia Monastica, p. 248. — (*g*) According to Burton or Speed's catalogue of religious houses and their values. But in Sir William Dugdale's, at the end of the first volume of the Monasticon, only four hundred thirty seven pounds. — (*h*) They began to recover so fast when restored to their house, after the Norman conquest, that their first patrons were tempted to strip them once again of all they had. — (*i*) As monasteries were the most able, and their tenures the most permanent, so the estates in their possession were commonly as well improved as any in the kingdom. — (*k*) Leland's Itinerary, vol. 1. fol. 57. — (*l*) Speed's Theatre of the British Empire, fol. 80. Additions to the English Translation of Camden's Britannia. Brome's travels over England, Scotland, and Wales, p. 155.

the latter half of the sixteenth century (*m*). The parish registers shew that in the beginning of the seventeenth, the inhabitants of Whitby were not above threescore families, yet they still went on thriving and improving in every respect; so that by the close of that century they were become very conspicuous, having, to those they originally had, added two great branches of traffic, one arising from their allum works, and the other from their taking a share in the coal trade (*n*). In consequence of this, we find that before the year 1700 they were possessed of about threescore ships, of the burthen of eighty tons or upwards (*o*); which, by the way, is above three times as many as belonged to all the ports in Yorkshire, in the reign of Queen Elizabeth (*p*).

THE increase of the people, the growth of shipping, the building and employing vessels of larger bulk than in former times, made the townsmen sensible of inconveniencies that had never appeared to their predecessors; insomuch that they found it necessary to apply to parliament, for power to raise a considerable sum of money, for the enlargement and security of their port. Accordingly, in the first year of the reign of Queen Anne, they obtained such a law (*q*), and in 1704 the pier on the west side of the harbour was carried out about three hundred yards, and another pier was erected at the east cliff, two hundred yards in length, running directly cross the harbour, by which the breadth at the entrance was reduced to about one hundred and twenty yards. These two piers broke the violence of the sea in stormy weather, and rendered it practicable for ships to ride in great safety, when they were once a little way within the heads. It was afterwards, however, found no less expedient to construct a third pier cross the harbour, on the east side, close to the end of the town, and to run another directly opposite to this, cross the harbour, from the west side, which reduces the entrance to about fourscore yards; and as these improvements were very expensive, a second act was procured in the seventh year of the queen, for continuing the duties so granted for a further term of years, that is to 1723, upon like suggestions (*r*). The advantages arising from all these works were so great, and the navigation and commerce

(*m*) According to private information, from persons well acquainted with the place and subject. — (*n*) Camdeni Britannia, p. 585. Remarks on the benefits arising from the coal trade. — (*o*) Additions to the English translation of Camden's Britannia. Brome's Travels over England, Scotland, and Wales. This the reader will find represented as the present state of the place in most of the modern descriptions. — (*p*) As appears by an authentic list in the year 1574 or 1575, and certified to the Lord High Admiral. The number of vessels were but fifty four of all sorts, and of these only eighteen above the burthen of fourscore tons, and all the sea-faring people, fishermen included, no more than eight hundred and eighty. — (*q*) Stat. Annæ, cap. 19. §. 1. The duties created by this act were to commence May 1, 1702, and to continue for nine years. — (*r*) This was a private act, and consequently not printed, but the import of it is recited in the subsequent statute of the eighth of his present majesty.

of this port so surprizingly increased, that it was found unavoidably requisite, in order to support and extend them much farther, to apply again to parliament, in the seventh year of the late king, when a law was passed to render certain duties, payable in that port, perpetual for those purposes (*s*). After all this, it still appeared indispensably necessary, to prevent the mouth of the harbour from being absolutely choaked up, an inconvenience to which tide havens are exceedingly exposed, to carry out the west pier to the full extent of four hundred and forty yards: And for this purpose an act was obtained, in the eighth (*t*) of his present majesty's reign, for continuing duties upon coals, laden any-where within the port of Newcastle, for thirty-one years, to be accounted from the first of July 1735; and even within these few years, another law has been made for repairing and enlarging the piers before-mentioned, and for many other, and those capital improvements, by which an additional duty of another farthing on every chaldron of coals, laden within the bounds of the port of Newcastle, to June 1, 1781, has been granted (*u*). At spring-tides there are eighteen feet, and twelve feet water at neap-tides, in this harbour; and the river Eske, or, as it was anciently called, Whisk, though there is a draw-bridge over it, being navigable as far as the village of Ruswarp, there is sufficient room to lay up five hundred sail of ships. In the year 1751 there were two hundred forty-five sail of vessels belonging to this port, their burthen computed one with another at fifty thousand tons. It may be they are since somewhat decreased, for here as well as elsewhere business ebbs and flows, from causes that we have not room to consider (*w*).

THE modern town and haven of Whitby are become quite different things from what they formerly were. The old church stands upon the east cliff, to which they ascend by two hundred steps or stairs, at a small distance from the remains of the abbey, venerable, not to say magnificent, even in ruins, and still very useful as a sea mark (*x*). The houses are neat, strong, and

(*f*) Stat. 7. Geo. I. cap. 16. §. i. By this, six pence a chaldron on coals, two shillings on every weigh of salt, four pence on every quarter of malt, corn, or grain, three pence a ton on all foreign goods imported in English bottoms, 6d. per ton for the like goods on foreign bottoms, one penny per firkin on butter, one penny per score for dry, three pence per barrel on wet fish shipped from Whitby, one shilling for every English ship that enters within the heads, and four pence for every top of such ship, for foreign ships double, are granted for ever.—(*t*) Stat. 8 Geo. II. cap. 10. §. i. which recites the act of the seventh of the queen, and revives the duty of one farthing per chaldron on coals, laden from the port of Newcastle.—(*u*) Stat. 23 Geo. II. which recites all the former acts, shews the useful purposes for which they were made, and had been thoroughly answered by them; states the income, from the perpetual taxes, at one hundred and forty pounds, and the debt, upon the first farthing on a chaldron of coals, at six thousand and two hundred pounds, with the farther benefits expected from the works now intended.—(*w*) I am to acknowledge, as I do with much gratitude, the communication of these particulars by the ingenious Mr. Lionel Charleton of Whitby.—(*x*) Cutler's Coalting Pilot, p. 6. It is very probable there was some fortress or other notable building here, even before the abbey, whence the Saxon name Strenthall, i. e. Strand Hall.

convenient;

convenient; the number of inhabitants about nine thousand; industry, frugality, and a universal passion for what regards the marine, are their distinguished characteristics (y). Ship building is their principal manufacture, for which they have three capacious dry docks, which, at spring-tides, will receive ships of full five hundred tons burthen, and the shipwrights have thoughts of adding two more (z). They have commonly ten or a dozen good ships on the stocks; and as the workmen are hindered by nothing but rainy weather, they build and repair with much dispatch and dexterity; and are reputed to launch, as sound, strong, and serviceable vessels as any, without exception, which are built upon this coast. It is incredible almost, what vast advantages this business has produced, and what prodigious numbers it constantly and profitably employs, uniting happily manufacture, trade, and commerce, in favour of these sober, honest, and industrious people (a).

THE trade of this town, being so populous, and those who dwell in it, having somewhat better to mind, raising little or nothing for their own subsistence, must be very beneficial to the farmers of the adjacent country; and their Saturday's market, which is remarkably well supplied, circulates many thousand pounds annually amongst their neighbours. An indubitable proof of this is the rise of land, inclosed and lying near this place, within memory, from about twenty to thirty-three years purchase. There is upon the river, at Ruswarp, a small distance above the town, one of the largest and most commodious boulding-mills, in the kingdom. As fishing was the original support of the place, so there is still abundance of fish caught, and, exclusive of what is cured, their panier-men dispose of fresh fish through all the places round about, to near an hundred miles distance. The allum works in the vicinity of this town, of which there are eight wrought at present, employ many hands, and in their consequences give subsistence to many more; for being a bulky commodity, considerable quantities are carried annually to Hull, and much larger quantities are sent hither. Kelp is also made of sea weed, along the coast, for the use of the allum-boilers and other purposes. Besides these there is no manufacture worth mentioning, except canvass, made chiefly for the service of the government, and not much advanced at present. It is believed there are coals at no great distance, and it is more certain there is iron ore, but neither kind of mine is wrought, for the same reason agriculture is neglected, because the people of Whitby know how to apply their skill and pains to a better account; but in

(y) This account of the people, which I received from the place, agrees perfectly well with the number of ships and seamen, and therefore they may be all pretty near the truth. — (z) *Atlas Maritimus et Commercialis*, p. 4, where it is said, the best and strongest ships employed in the coal trade are built here. — (a) *Cutler's Coasting Pilot*, p. 6. *Gentleman's Magazine*, vol. xxi. p. 118. See also all the modern accounts of this port.

process of time, as their numbers increase, they may probably turn their thoughts to both (*b*). Their coast trade in time of peace, is very large; they export butter, fish, hams, tallow, allum, &c. About six thousand barrels of this excellent butter comes yearly to London, and five-hundred barrels of fish to the same market. On the other hand, they import a thousand ton of lime from Scarborough, and many thousand chalders of coals for the use of the allum-works, and for their domestic consumption, besides a multitude of useful and necessary commodities from hence; sending hither usually between forty and fifty vessels a year. They have, in common with the rest of the ports upon the coasts, a considerable share in the coal trade, and, in time of war, are generally much concerned in letting out their shipping for the transport service. Thus in no season are they idle; and the very wear and tear of their craft brings fresh employment and additional benefit to their carpenters, who are always busy (*c*).

BESIDES all this, their foreign commerce is not only worthy notice at present, but is also daily encreasing; and so extensive that it reaches to almost all parts of Europe. They send between twenty and thirty large ships annually, properly laden, into the Baltic, exclusive of a ship sent also to Archangel in Russia, on account of the merchants of London; nine or ten vessels almost constantly passing between this place and Holland; five or six sail yearly up the Mediterranean, which very frequently proceed to the Levant, with at least one hundred and twenty tons of salt-fish, amongst other products of this country; about the same number to the northern colonies: They have of late had some intercourse with the Leeward Islands, and have also been pretty successful in the whale-fishery. What they import chiefly are the following goods; rice, salt, iron, timber, hemp, pitch, tar, turpentine, and other bulky commodities, for their ship-building. They have three insurance companies, exclusive of private agreements among merchants and owners of ships, to indemnify each other from losses by sea, fire, or war, which have excellent effects, and keeps up a prodigious spirit of industry and enterprize, by securing individuals from being undone by any bold undertaking, which is a point of inexpressible consequence in a place like this, as it connects the whole community in the same interest, and, which is every-where a blessing, contributes to the raising many competent, instead of a few very great fortunes (*e*).

(*b*) Additions to the English Translation of Camden's Britannia: Ray's Prov. p. 144, 145. Private information from some of the inhabitants.—(*c*) Maitland's History of London, p. 621, and from particular informations, some of which make them more.—(*d*) Brome's Travels over England, Scotland, and Wales, p. 455, 156. Account of Whitby in the Gentleman's Magazine, vol. xxi. p. 108, 110. Cutler's Coasting Pilot, p. 6.—(*e*) This custom has been introduced into some other ports as well as Whitby, and with no less success, and for that reason is recommended here; as one expedient for supporting a rising port, and cherishing that disposition to risk a little to get a great deal, which, though it may be dangerous to particular persons, is commonly advantageous to such voluntary societies.

As

As long as this account may seem, it was no easy task to bring it even within these bounds; and this shall render us more concise in our remarks. We have a pretty distinct idea, from what has been said, of the state of Whitby for about eleven hundred years. It was most likely in a very happy and flourishing condition under the protection of its abbey of nuns; when, if my conjecture be right, those parts of Yorkshire were well cultivated, and very fully peopled, which now are little better than desolate moors (*f*). The resistance made to the Norman conqueror, occasioned, as all our old histories observe, great devastations here; and the country being for a long time depopulated, the Eske and all the other streams overflowing, converted into a wide marsh what had been good corn-land in the Saxon times (*g*). It must be owned, that soon after the conquest the Benedictine monks recovered and repaired this place in some degree, and, while under their auspice, Whitby sent three deputies or members, though not to parliament, yet to a council, which proves it to have had some trade; but it was not at all regarded as a port, till after the dissolution of the convent (*h*). At this period there were no more than a few hundred inhabitants, driven by that event to seek new means of living, their old support being gone; and, as Leland shews, beginning to look abroad for a constant market, which they had hitherto found at home (*i*). Such were the improvements of nine hundred years, during which their navigation extended no farther than fishing, and perhaps carrying that fish to some large towns on or near the coast (*k*).

FROM the time they began to export the produce of their neighbours lands in their own bottoms, they began likewise to thrive. Some assistance they obtained for a season from a mineral spring, since choaked up by the fall of their rocks; but notwithstanding this, and their allum works, it was one hundred and fifty years before their port made any considerable figure (*l*). The loss sustained by a storm Anno Domini 1710, in which it was computed the shipping destroyed here amounted to forty thousand pounds (*m*), excited such an attention to its security, as hath gradually rendered it what certainly would have been held a thing absolutely impossible in the days of our ancestors. It is since this that all the great points have been

(*f*) Bedæ Hist. Eccles. lib. iii. cap. 24. Chronicon Saxonum, p. 45. Lelandi Collectanea, tom. ii. p. 365.—(*g*) Gulielm. Malmfbur. in Prologo Librii tertii de Vitis Pontificum. Lelandi Genethliacon Eadvardi Principis Cambriæ, p. 42. Sir William Dugdale's History of Embanking, chap. xxiii.—(*h*) Willis's Notitia Parliamentaria, vol. i. Preface, p. xxxii.—(*i*) Itinerary, vol. i. fol. 57, 68.—(*k*) It was the accident of their cliff falling down, that enabled the poor people to raise something which in our days passed for a pier; and to this all their future successes were owing.—(*l*) Martini Listeri Dissert. prima de Fontibus medicatis Angliæ, p. 23. Short's History of Mineral Waters, vol. i. p. 279.—(*m*) See in respect to this all the modern accounts of Whitby.

gained,

gained, and more done in half a century, than in ten centuries and a half preceding, and this by industry and trade, and not by magic or miracle (*n*). We may from hence see the difference between one sort of improvements and another; the superiority of the joint effort of freemen for their own advantage, to the labour of vassals, as the inhabitants of Whitby were to the Benedictines; and the amazing efficacy of a port in attracting people, and inspiring them with those qualities most capable of turning to their own and to their country's advantage, and persisting uniformly and vigorously therein, tho' not united to each other by the legal bonds of a corporation.

THE shore declining west north west, and west by north from Whitby, the next conspicuous point of land is Huntly Cliff. Beyond this, still more to the north, appears Redcliff, which makes one side of a bay, as the promontory on which Hartlepool stands does the other, the river Tees rushing with a rapid tide into the German Ocean between them (*o*). Hartlepool is seated on a small neck of land, extending itself into the sea, called by our Saxon ancestors Heortheu or Heort-ness, very famous for an abbey, in which, as we before observed, the princess Elfreda became a nun, under the care of the abbess Hilda (*p*). The town, which appears on an eminence, is surrounded by the sea on every side except the west, is very ancient, and was incorporated by King John, who was remarkably kind to all maritime places. In the reign of Edward the Third it furnished five ships, and those large, at least for these times, to that monarch's navy (*q*). It had formerly a very great resort to its market, but at present is chiefly distinguished for its port, covered by a pier on the west side, within which ships ride very securely, and to the south of the place there is a very good road, in which they may safely anchor from six to ten fathom water, which makes it a commodious retreat for deep laden colliers, and has often defended great fleets from shipwreck (*r*). It is the next town in rank in the bishoprick of Durham to a city of the same denomination, is governed by a mayor, and is stiled a borough, but sends no burgesses to parliament. If we consider it in a commercial light, it is reputed a

(*n*) If accident makes a port, may not policy? If misfortunes produce improvements, might they not be prevented by foresight? Must we wait the tumbling of a rock to point out to us where a haven may be made, or when made, learn at the expence of so many thousand pounds how to render such a harbour safe.—(*o*) Camdeni Britannia, p. 602. Speed's Theatre of the British Empire, fol. 84. Cutler's Coasting Pilot, p. 6. —(*p*) Bedæ Hist. Eccles. lib. iv. cap. 2. Lelandi Collectan. tom. iii. p. 36. ex Vita S. Beggæ. Lambard's Historical and Topographical Dictionary, p. 145. Tanner's Notitia Monastica, p. 56. —(*q*) See the record in Hakluyt, which shews they carried twenty-nine men each. —(*r*) Camdeni Britannia, p. 602. —(*r*) See the article in Collier's Geographical Dictionary. Cutler's Coasting Pilot, p. 6.

member of the opulent port of Newcastle, but without having any creek belonging to it (*t*).

AT the distance of four leagues north from Hartlepool lies Sunderland, which is supposed to have received its name from its situation, being almost surrounded with water. It is at present regarded as one of the principal towns in the Bishoprick of Durham, though not mentioned by Lambard or Camden, and had certainly no market in the time of Speed. It stands on the south side of the river Wear, and so near the German ocean, as at high tides to be made a kind of peninsula. The port is barred, and, even when highest, the water seldom exceeds twelve feet, so that very large ships still take in their loadings in the road. Notwithstanding this, the harbour raised the place to that rank which it now holds, and which will hereafter appear to be very considerable (*u*). The conveniency of shipping coals, with which the bishoprick abounds, first brought the factors in that commodity, and the owners of vessels, to settle there: Then the inhabitants began to set up salt-pans, and, in process of time, to venture upon glass-works. As all these naturally afford encouragement to smaller manufactories, and furnish employment to numbers of people, by degrees the place became very populous, more opulent traders and merchants resorted thither, the mean and old buildings have been succeeded by good brick or stone houses; so that Sunderland at present is a very handsome, thriving, and celebrated sea-port, which at the beginning of the last century was an unnoticed village (*w*). It is requisite to the support of that doctrine, which in this chapter is maintained, to examine how this has been effected, in what proportion it has been assisted by the public, and how far these marks of attention have been answered by apparent instances of accumulated benefits.

AMONGST the principal causes that rendered Sunderland frequented, or it may be first recommended it as a haven, we may reckon the speedy getting out to sea, which enabled the colliers from hence, by the quickness of their voyages, to carry as many coals in the compass of a year, though smaller ships, as those from the port of Newcastle. Another circumstance, which possibly may be referred to the same principle, was the making their crews bold and expert seamen; so that though their vessels were exposed to great and frequent dangers, yet were they very rarely lost (*x*). By these advantages, the townsmen rising in wealth and in reputation, began to

(*t*) Willis's *Notitia Parliamentaria*, vol. ii. p. 510. Molloy de Jure Maritimo et Navali, p. 323. Crouch's View of the British Customs, p. 384. — (*u*) Additions to the English translation of Camden's *Britannia*. Willis's *Notitia Parliamentaria*, vol. ii. p. 510. *Atlas Maritimus et Commercialis*, p. 4. — (*w*) Speed's *theatre of the British Empire*, fol. 84. See the article in *Collier's Dictionary. Gentleman's Magazine*, vol. xxv. p. 274. — (*x*) Additions to the English translation of Camden's *Britannia*. *Atlas Maritimus et Commercialis*, p. 3. Cutler's *Coasting Pilot*, p. 6.

think of removing some of the inconveniences attending their harbour, and, about forty years ago, applied to parliament for a power to raise money, by certain duties, for these laudable purposes, which they accomplished; and in consequence thereof entered upon the construction of a pier, deepning the mouth of their port, and other works of a like nature, and these being very chargeable, upon a further application ten years after, they were put into a capacity of proceeding in their designs, and indulged with more extensive powers (z). The beneficial consequences flowing from the great improvements already made, and the prospect of more valuable advantages, as well to the revenue, the support of the navy, and the increase of navigation, as the private and particular interests of the place, were so strongly represented in the present reign as to procure a third act, for levying a duty upon all coals shipped in that port, which will not determine till midsummer 1768, in order fully to complete this necessary undertaking, and clear away as well the accidental impediments, arising from the careless shooting of ballast and stones into the haven, as the natural incommodities from the sand rolled in by the tide, and preventing both for the time to come (a). Besides these signal instances of attention of the legislature, an act has been obtained for making a turnpike road, to facilitate the correspondence between this town and the city of Durham (b), which I mention particularly as a proof of my assertion, that ports of this kind tend to promote inland Trade, as well as navigation and commerce.

As far as any lights we have will enable us to judge, Sunderland began to rise into some kind of figure about 1620. As the coal trade advanced, which, by the great expense attending the working, and the discouraging uncertainty of the mines, was but slowly, Sunderland grew to be more conspicuous. In the reign of king Charles the Second, it was esteemed a haven of some note, and before the close of the century was become very considerable (c). About the time that the inhabitants of Sunderland first applied to parliament, they might have something more than one third of the trade and commerce they now enjoy. Within forty years she is grown from a thriving to a very large town, and from a port of some business to a very opulent emporium. Her pier, her new church, her great street, are testimonies of the former; and the entries in her custom-house, supply authentick evidences of the latter (d). There are near as many coals now exported from hence, as were consumed in this

(z) Stat. 3 Geo. I. which was a private act. Stat. 13 Geo. I. cap. 6. §. 1.—
 (a) Stat. 20 Geo. II. p. 479.—(b) Stat. 20 Geo. II. p. 395.—(c) Additions to the English translation of Camden's Britannia. Molloy, de Jure Maritimo et Navali, p. 323. Crouch's View of the British Customs, p. 384.—(d) See this article in Collier's Geographical and Historical Dictionary. Atlas Maritimus et Commercialis, p. 4. The modern descriptions of England.

metropolis at the time of the revolution; and double the number of ships entered annually here, to those then entered at the port of London. In 1752 there were on the Custom-house books within three of three thousand six hundred; of which one hundred and seventy-three foreign, the rest coasters (*e*). There belong at present about two hundred sail of vessels to the ship owners of Sunderland, exclusive of small craft, which are mostly employed in the coal and coast trade; and as the clearest mark of what benefit the country has received from the settlement of such an haven, the number of people in this town, and the adjacent hamlets of Bishop Weremouth, the Salt Pans, Monks Weremouth, and the North Shore, are computed at twenty thousand (*f*). It is true that these advantages have not been obtained without some expence, the pier alone having cost near twenty thousand pounds; but at the same time let us remember the whole of the expence has been laid out on the commerce of the place; and the whole of the duty will not amount in twenty-one years, to the sum annually raised for the public service, by the imposition on coals shipped from this very port (*g*); which will enable the judicious reader to form some idea of the benefits derived to the nation from a harbour like this, whence immense quantities of our staple commodities are exported, where vast manufactures are carried on, by which continual additions are made to both shipping and seamen, large sums paid to the revenue, and a multitude of people maintained, through the encouragement given to their industry, in affluent happiness. This great harbour of Sunderland is no more than a member to the port of Newcastle, as well as Hartlepool (*h*).

TINMOUTH was without question a Roman station, but whether Tunnocellum or not admits of some dispute (*i*). Here they had a small squadron of light vessels, or armed sloops, to cover the mouth of the river, and to examine all ships that came upon the coasts. At a small distance northward stands Cullercoats, or as some write it Collercoats, a place otherwise of no great distinction but worthy remembrance in this respect, that it is a very commodious little port of artificial construction, or, as the common people truly and emphatically style it, an harbour made by hand. It is dry at low water mark, and difficult at the entrance, but it serves only for coals and salt belonging to the works of particular per-

(*e*) See a large and accurate account of this port in the Gentleman's Magazine, vol. xxv. p. 274, 317.—(*f*) According to the best information I could procure, this computation, tho' it seems very extraordinary, was judged nevertheless to be within compass.—(*g*) The port duties have been estimated at two thousand five hundred pounds per annum, and whatever they are, the crown duties upon this commodity amount to thirty times as much.—(*h*) Additions to the English translation of Camden's Britannia. Molloy de Jure Maritimo et Navali, p. 322. Crouch's View of the British Customs, p. 384.—(*i*) Camdeni Britannia, p. 668. Baxteri Glossarium Antiquitatum Britannicarum, p. 232. Salmon's new survey of England, vol. ii. p. 611, 612.

sons, at whose expense it was constructed (*k*). Seaton sluice was originally of the same kind. Sir Ralph Delaval, one of the ablest admirals of the last age, and a gentleman of a vast estate in this country, which did him honour, as arising in a great measure from revenues produced by the sagacity of their owner, was continually contriving new improvements, in the execution of which he never hesitated at expense, and amongst the rest made this port on his own plan, and entirely at his own charge, for the benefit of himself and tenants immediately, but without excluding others who chose to use it (*l*). In the construction of this small harbour he found enough to exercise his skill and patience, the stone pier which covered it from the north-east winds being carried away by the sea more than once; and when he had, at length, overcome this difficulty by using timber as well as stone, he felt a new inconvenience, by his port's filling up with mud and sand; tho' a pretty sharp rill ran through it, which had so hollowed the rock as to produce that very basin which Sir Ralph would convert into a haven (*m*). In order to remove this mischief, he placed a new strong sluice with flood-gates upon his brook; and these being shut by the coming in of the tide, the back-water collected itself into a body, and forcing a passage at the ebb, carried all before it, and twice in twenty-four hours scoured the bed of the haven clean. King Charles the second, who had a great turn to matters of this kind, made him collector and surveyor of his own port, and it still bears his name, being sometimes called Seaton Sluice, but commonly Seaton Delaval; tho' strictly that is the name of the town to which this little port belongs, and is a creek to Newcastle (*n*). It admits only small vessels, yet larger may lie safe and receive their lading in the road, which renders it very commodious. The reader may, from these instances, be convinced that making ports upon our coasts is no absurd or visionary project (*o*). It requires indeed some things not easily to be met with; a degree of public spirit equal to the thirst of private profit, a steadiness not to be shaken by untoward actions, and a probity not to be seduced by any sinister views.

AT the distance of a league to the north of Seaton Delaval lies Blith Nook, at the mouth of a small river (*p*). Here is a quay and some other conveniences; tho' at low-water the sea, at the opening of the creek, may be safely passed on horseback. It

(*k*) Cutler's Coasting Pilot, p. 6. And from private information.—(*l*) History of Europe for the year 707, p. 445, 446. Pointer's Chronological History of England, vol. ii. p. 587. Boyer's Annals of Queen Anne, vol. 5. p. 351.—

(*m*) The Life of the Lord Keeper North, by Roger North, Esq; p. 137, 138. As also from private information.—(*n*) Molloy de Jure Maritimo et Navali, p. 322. Cutler's Coasting Pilot, p. 6. Crouch's View of the British Customs, p. 384.—(*o*) The judicious reader will readily recollect many places in other counties, as easily improved in this way as Colliercoats, or Seaton Sluice.—

(*p*) Atlas Maritimus et Commercialis, p. 5. Crouch's View of the British Customs, p. 384. Cutler's Coasting Pilot, p. 6.

may be thought, that being at the mouth of a river, it ought to have been mentioned in the former chapter, but as that river is not navigable, we conceive it more expedient to place it here (*q*). This, as well as those before described, derives its origin from the coal trade, having some advantages from its situation, which brought it first to be regarded, and has since preserved it in esteem. We find the name in some of our old maps; but from comparing all circumstances, it seems probable that it was very little considered, or those works raised, till about the time of the restoration (*r*). In the space of fifty years from thence, the vessels loaded there were not numerous enough to attract notice; and yet about ten years after, or a little more, they became at least double, tho' there was no village at the place, or any tolerable town near it (*s*). In 1728 it seems to have doubled again, since two hundred and seven vessels were that year entered in the Custom-house books as coming from this place, and things have been improving ever since. It is looked upon as a creek to the port of Newcastle (*t*).

We may from these instances, and many others in the last chapter, discover what I have more than once touched already, but which, on this occasion, I cannot forbear hinting again, that is, the immense benefits this nation has received, and is daily receiving, from the coal trade, which employs so many thousands of industrious persons in digging these rich treasures out of the earth, so many thousands more in the conveyance of them to the sea-side, and on ship-board, and still so many more thousands in the navigations of every kind, by which they are carried to the places where they are at last consumed (*u*). Whoever views this subject on all sides, for it has many, and every one of them advantageous, cannot but be convinced that in the most material points, and those of greatest consequence to a nation, coal is not unworthily compared to silver; or, all benefits maturely weighed, the salutary effects of the British Black Indies, to the returns which may be made to other countries in Europe, in any commodity, or from any Indies whatever (*w*). More especially if we take into the account the many ports which have been opened, for the conveniency of transporting this most useful and valuable produce of our northern counties, and that amazing share of

(*q*) Political Survey of Great Britain, vol. 1. p. 169.—(*r*) Molloy de Jure Maritimo et Navali, p. 323. Atlas Maritimus et Commercialis, p. 5. Crouch's View of the British Customs, p. 384.—(*s*) Consult and compare the ancient and modern maps. Examine the latest discoveries. See likewise Cutler's Coasting Pilot, p. 7.—(*t*) According to the Custom-house books. Molloy de Jure Maritimo et Navali, p. 323. Crouch's View of the British Customs, p. 384.—(*u*) It cannot be too frequently inculcated, that this commodity alike promotes foreign commerce, the coast trade, and inland or river navigation.—(*w*) Let the judicious reader compare the tonnage of the plate and that of the coal fleets; the value of the industry produced by one, with that of the wealth brought home by the other; and consider the voyages of both, and the number of seamen they breed and employ.

manufactures, trade, and foreign commerce, which most of those ports have now acquired, independent of that by which they were originally rendered such. These, as they now stand, so far as regards human policy, may be said to have taken rise from accident; that is, necessity pointed out those few additions that are the effects of reason, but irregularly, slowly, and, after all, perhaps imperfectly (x). It is therefore certainly possible to correct these difficulties and defects more thoroughly and effectually here, and to avoid them altogether, or at least in a great degree, in other places.

BUT I hope none will conclude from hence, that because the coal trade has undoubtedly made so many ports, therefore there can be no ports, or at least no new ports made, where there are no coals. As whimsical a caution as this may appear, I have known as strange notions taken hastily up from the force of the first impression; and, being once assumed, both warmly and plausibly defended. Bring therefore the fact to the touchstone of reason, and let us from the light of experience, collect the true doctrine upon this head; the certain knowledge of which is the capital point to be discussed in this chapter (y). That the coal trade has opened many ports, assisted many more, rendered several countries rich and populous, increased the shipping, extended the navigation, and augmented the stock, as well as contributed largely to the public revenue of the nation, is beyond all doubt (z). Upon mature reflection we may perceive, perhaps, how this has been done. In the first place, coals are not attained without labour; the obtaining them therefore is, and must have been, a great support to industry: Next, there has been a constant and increasing demand; this has been the means of keeping up the price, and of course the works and all their dependencies: They are, in the third place, bulky; this has been highly advantageous in the affair of carriage, both by land and water: They are speedily consumed, which takes away all fear of the demand's sinking; and by the way, in this circumstance coals are much preferable to silver, the value of which diminishes in proportion to its plenty: Lastly, coals are a gift from providence, and cannot be taken from us (a). Whatever commodity, therefore, that has these advantages, in the same degree, may be made to answer the same purposes as coals.

(x) Applications procure laws; defects produce further laws. Trade in the mean time supports its own burdens, tho' charged with many loads besides. It would be of consequence to lighten, and much more to prevent, these inconveniencies.—(y) Lord Bacon's *Prudent Statesman*, §. vi; vii. De Witte, *Grondeen en Maximen van de Republieck van Holland*, ii. deel, cap. ix. Sir William Petty's *Political Arithmetick*, p. 177.—(z) Houghton's *Collections on Husbandry and Trade*, vol. ii. p. 155. Additions to the English translation of Camden's *Britannia. Atlas Maritimus et Commercialis*, p. 103.—(a) This Analysis is very succinct, and is only intended to open the reader's view, and by no means to give a complete prospect of this important subject.

Whatever has some of these advantages, tho' not all; or whatever has them all, though in a less extent; may answer these purposes in a less degree (*b*). We see what a commodity with these advantages has done, and from hence we know what another such commodity would do. But instead of searching for coal mines in every county, the finding which is the only event that can lessen the value of those we have, it is our business, having these distinct marks, to look out for other commodities, that may be beneficial at least, if not as beneficial, in every maritime country; and having either found or planted them (for this sometimes is in our power) to turn them, as soon and as far as may be, to the most extensive uses (*c*).

It may possibly be thought very difficult, if not impracticable, to execute this task. But in order to disable in some degree this objection, let it be remembered, that the Britons, Romans, Saxons, Danes, and Normans, were long in the possession of those countries which abound with coals, carbonés fossiles, as the learned Camden calls them, without finding or using them; and therefore we have many valuable products, as certainly as they had coals, in our power, tho' not in our possession (*d*). Let us reflect, how long a time after they were discovered it was before they came to be considered as any thing more than a mere local conveniency. Let us advert to the numerous, indeed almost insuperable, difficulties, when they were known and bore a price, that were to be overcome in working the mines to any profit, and how many popular prejudices were raised against works of this nature, as the most hazardous and dangerous undertakings, calculated rather to sink gentlemens fortunes than to advance them (*e*). Let us likewise remark, that it is little more than a century, since they became in any degree the basis of the northern coast trade, the cause of opening new ports, increasing the number of our ships, and raising and maintaining by this alone many more seamen, than, before that period, were supported by the whole trade and commerce of this nation (*f*). One cannot affirm that these reflections will lead us to the direct discovery of these latent commodities. But nevertheless there are many, and those too no insignificant points of knowledge, to which they will unquestionably bring us, that may have a strong influence upon such an inquiry.*

(*b*) A due consideration of this, will show that we have not over-rated the prerogatives of Britain.—(*c*) In different parts of this work, as occasions offered, something to this purpose has been done.—(*d*) Britannia, p. 389, 600. The first statute which relates to coals, is 9 Hen. V. A. D. 1421.—(*e*) Grey's Survey of Newcastle upon Tyne, §. xix. in which it appears the same insinuations were urged against these as against silver mines.—(*f*) As extraordinary as this may appear, yet beyond all doubt, the assertion extending to all the ports shipping coal, is not only strictly true, but also very much within bounds.

THEY will teach us not to judge of countries by their superficialities, any more than we ought to judge of men merely by appearance. The roughest Countries have their riches, as well as the fairest; tho' perhaps they lie deeper, and cost somewhat more trouble in bringing them to light; for which they pay amply in the end (*g*). They will instruct us not to be discouraged with the want of success in the beginning, or the expense with which such attempts must, from the nature of them, be always attended, and which nevertheless are certainly to be overcome (*h*). They will point out to us the necessity of the public's taking them early under their protection, when it once appears they may be very advantageous, without waiting till they become so; and thereby consigning to posterity the profits we so much need, and by timely precautions, may reap ourselves. In fine, they will excite us to be assiduous in our researches, awake to what imports us most, our national interests, and equally cautious in abetting fanciful and precarious projects, and in suffering well-laid and practicable designs, which in their consequences may prove beneficial to the public, to be, as has been often the case, the bane and ruin of private men (*i*). I will not say, that this strictly speaking, is an act of justice; but I dare affirm it is a point of true policy, and that a few examples of persons bountifully rewarded for services of this sort done, tho' perhaps not intended, would turn highly to the honour and emolument of the state; nay, would prove the most effectual instrument towards accomplishing the discovery of such equivalents to coals as we have proposed.

THE particular point however which from all this deduction I would chiefly recommend, is a steady as well as timely attention to every attempt of this kind on the part of the public; that is, of such as are intrusted with the management of public affairs (*k*). There is a critical conjuncture in all such undertakings, when the smallest unforeseen discouragement sinks them at least for that age, as the lightest additional assistance would have set them on float. But, above all, the opening secure and commodious harbours, in well-chosen situations, and making good roads to them on every side, will quicken every enterprise of this sort, and bring it forward a century or more (*l*). If it

(*g*) Theophrast. Hist. Plant. lib. iii. cap. 4. Ol. Magn. Hist. Gent. Septent. lib. vi. Kircheri Mundus Subter. lib. ii. Sibbaldi Prodr. Nat. Hist. Scot. P. i. lib. i. cap. 12. Scheuch. Iter. Alpin. 2.—(*h*) Consider the Salt Mines in Poland; the junction of the ocean and Mediterranean in France; and the numerous defensive dikes in the united provinces.—(*i*) However unsuccessful in the first attempts, whenever a scheme of great utility takes effect, at any distance of time the public, as reaping the benefit, is bound in equity to reward the projector, or even his family, who were probably sufferers by his attempts.—(*k*) These were the notions of the Earl of Leicester and Lord Burleigh in England; Cardinal Richlieu and Mr. Colbert in France; Messieurs Barnevelt and De Witte in Holland.—(*l*) This computation is grounded on the comparison of the time elapsing between the first opening of ports, and their applications to parliament, which by an early and adequate assistance might be saved.

be asked, what will the publick get by this? I answer, more a great deal than the most fortunate projectors ever did. If immediately after the restoration, the publick (as in the time of peace had been very practicable) would have given these northern parts those supplies, then foreseen, since demanded and obtained, one of the Dutch wars had been spared; and if the two succeeding French wars had been necessary, they might have been carried on without running in debt; for we could have levied then, (while the war lasted) what, whether war or peace, we levy now; and that would have done (*m*). If it be demanded, what shall the ministers get? My reply is, an universal and everlasting reputation. Under such great men, it will be said, this or that branch of trade took rise: By the sagacity of others, land in some countries, which sold for twenty-three, was raised to thirty years purchase: And those immense piles of marble and porphyry the attention of such a statesman bestowed upon his country, by facilitating their transportation from that part of the British isles where they had been useless from the creation, to that part where only they could with propriety appear in works of magnificence; and thus wisely directed the drain of useless wealth to those barren spots, where industry till then could never rear her head for want of support (*n*). These are the genuine efforts of public spirit; these the fruits by which it may be known. These require no deep schemes, no subtile arts; sound sense, and a heart well-placed, (Englishmen's native talents) with a little Cambridge or Oxford cultivation, will furnish capacities for this, and make their memories live, as public benefactors, in the mouths of honest home-bred clowns; which is far better than tracing the costly marks of their political negotiations, in the corps diplomatique. (*o*).

WE are now to pass over to the west side of the island, where we find the coast of Cumberland, of which the Romans took so much care, and in which they had variety both of military and naval stations (*p*). A coast many leagues in extent, and forming a sea-line indented with such considerable bays, that it is not a little strange there are not more and much better ports in it, than those which our Custom-House books record. This subject however has been already treated, so far as regards the numerous, and some of them very improveable rivers, which, within this space, fall into the sea; and our present business is confined to the harbour of Whitehaven, of which we promised to speak in this place (*q*). In former times the name was writ-

(*m*) See Dr. Davenant's Tracts on the Finances of Britain, and the modern writers on the same subject, who have proved the matter of fact beyond contradiction.—(*n*) This would be rendering one part of the British dominions an Indies to the other, and gaining as much by luxury as by labour; which is the utmost reach of human prudence.—(*o*) To furnish the rudiments of this most useful science is the author's utmost ambition, and has been his constant endeavour in this performance.—(*p*) Camdeni Britannia, p. 631. Baxteri Glossarium Antiquitatum Britannicarum, p. 179. Salmon's new Survey of England, vol. ii. p. 623.—(*q*) See the Political Survey of Great Britain, vol. i. p. 169, 170.

ten Whitehaven, and it is certainly a place of great antiquity (*r*). It is with much probability supposed to have derived this denomination from the white cliffs on one side of the port, which tho' so long known, was so little regarded for several ages, that it remained a kind of fishing hamlet in the parish of St. Bees, unnoticed and without any circumstance attending it that could suggest even a possibility of its becoming what it now is (*s*). It seems to have been drawn out of this obscurity by the family to which it belongs, and this in the reign of Charles the first, when Sir Christopher Lowther of Whitehaven, second son of Sir John Lowther of Lowther (from whom the present Sir James Lowther is directly descended) was created a baronet, whose interest and attention were of great service, and procured no small advantage to this town (*t*). The working coal mines in its neighbourhood was another favourable incident, so much improved by the skill and care of Sir John Lowther, who was a person of extensive genius, endowed with all the good qualities requisite to make him considered and esteemed at court, respected and beloved in the country, that in reign of Charles the second, it came to be looked upon as the most noted harbour in this county, as appears by the creeks then put under its jurisdiction, tho' it continued, as it still does, a member only to the port of Carlisle (*u*).

WE have already remarked more than once, that whenever ports are opened by the coal trade, they commonly acquire, in the course of a few years, several others, which was the case here, particularly in relation to salt. But besides, it was quickly discerned that Whitehaven was capable of receiving many emoluments from the nature of its situation, which rendered it extremely convenient, before the union, for carrying on a large trade with Scotland, chiefly (tho' at second-hand) with the produce of the English, and principally our North-America plantations; and it is said, with much appearance of truth, that the correspondence between this place and Glasgow, contributed not a little to inspire those notions of extensive commerce, in the inhabitants of that city, which they have since cultivated with such wonderful success (*w*). But after all the principal source of the rapid progress, and the present grandeur of this port, has been derived from that peculiar conveniency with which coals are transported from thence to Ireland, where the entire destruction of their woods had made them very necessary; and in the full and almost sole possession of this trade, not only constant, but continu-

(*r*) Dugdale's *Monasticon Anglicanum*, tom. i. p. 398. Tanner's *Notitia Monastica*, p. 35. Additions to the English Translation of Camden's *Britannia* — (*s*) Consult Saxton's Maps. Speed's *Theatre of the British Empire*, fol. 89. Spelman's *Villare Anglicanum*. — (*t*) English Baronetage, vol. ii. p. 308. — (*u*) Additions to the English Translation of Camden's *Britannia*. Molloy de *Jure Maritimo et Navali*, p. 323. Crouch's *View of the British Customs*, p. 328. — (*w*) *Atlas Maritimus et Commercialis* p. 17. Beawes's *Merchants Directory*, p. 579.

ally increasing, the inhabitants of Whitehaven have remained for many years (x). These additional benefits properly improved, raised a spirit of industry in the people, unknown in these parts, for want of some such prospect, to former times; and by the speedy increase of their numbers, and diffusing the same active spirit thro' the adjacent country, has much encouraged the cultivation, and of course, even to a great distance, raised the value of lands (y). The transporting immense quantities of bulky commodities, and the distribution of their returns by a prodigious and very beneficial coast trade, caused an augmentation of shipping, multiplied seamen, and, in order to their having sufficient employment, it became necessary to strike into new branches of commerce. For the maintaining and promoting such a vast variety of business, many new occupations, as may easily be conceived, became indispensibly requisite, which furnish a comfortable subsistence to a multitude of families; and these, taken all together, have rendered Whitehaven that rich, populous, and flourishing town, which it now is (z).

THE port to which all this has been owing, or without which at least, it never could have been attained, was not by nature either considerable or commodious. It might, and perhaps it did, thro' ages long since past, serve for barks and fishing vessels, which however is only collected from its name. But certainly it would never have been frequented by any thing better, if Sir John Lowther had not applied his thoughts, and been likewise at some pains and no small expense, to improve it (a). This indicated what might be done, attracted inhabitants, and laid a solid foundation for what has followed. There was a little pier run out to the North-West of the haven, which protected well enough the few small vessels that first used it. But in proportion as trade grew, inconvenience grew with it. Instead of a pier they wanted a mole, the harbour was shallow, the neighbouring coasts dangerous, and many other faults were found; not with a view of discrediting the port, but to show, that how great and grievous soever they were, they might be nevertheless effectually redressed. Upon an application to parliament for this purpose two private acts were obtained, in the reign of Queen Anne (b), in which all and much more than has been said is most pathetically expressed. In consequence of the powers given by these acts, several necessary works were entered upon, the harbour made much more secure and deeper than it

(x) Additions to the English Translation of Camden's *Britannia*. Cutler's *Coasting Pilot*, p. 16. Harris's *History of the County of Downe*, chap. iv. p. 112.—(y) See all the modern accounts of this rising port.—(z) Additions to the English Translation of Camden's *Britannia*. *Atlas Maritimus et Commercialis*, p. 17. Beawes's *Merchants Directory*, p. 578.—(a) *Atlas Maritimus et Commercialis*, p. 17. Cutler's *Coasting Pilot*, p. 16. *English Baronettage*, vol. ii. p. 308. additions to the English Translation of Camden's *Britannia*, the last edition.—(b) These acts are, according to their titles, (which is all that appears in the printed statutes) the first, 7 Annæ, for preserving and enlarging the harbour; the latter, 10 Annæ, for continuing the duties granted by the former.

was. But after all, as these laws were, in reference to a very great part of the duties granted by them, but temporary, the assistance they gave was visibly insufficient, a debt being contracted on their credit, which, from their produce within the time assigned, could not be discharged; and no competent provision for the necessary repairs, in time to come, of what had been already performed; much less for the making farther improvements; which, in consequence of those which had been made, by that time appeared practicable (*c*). Besides, the trade of the town had brought on other difficulties which had not been foreseen: The roads leading from Egremont, from St. Bees, from Dislington, and other places, were very narrow, as having been but very seldom used by wheel-carriages; but since the amendment of the harbour, the great resort thither had made those roads ruinous and dangerous, and large sums were necessary to repair and widen them (*d*). Upon these suggestions, a very ample law was obtained, in the present reign, to make good all deficiencies, to perfect and to support the haven, and to put the roads into such a condition as might render the access to Whitehaven, on every side, not only practicable and safe, but in every respect easy and commodious (*e*).

AFTER considering thus copiously, as the great importance of the subject demands, how; let us next contemplate, what, has been done? Let us see why this place is particularly referred to, what mighty alterations have been made, and the benefits that have resulted from all these pains? In few words then, Whitehaven is at present a large, regular, well-built town, about one third bigger than the city of Carlisle, but containing thrice the number of inhabitants (*f*). Those inhabitants perfectly well lodged, all embarked in profitable employments of some kind other, so that they are in a continual scene of unaffected industry, and carry on their affairs with great dispatch, and yet without hurry or confusion. A plentiful and commodious market supplied by, and supplying both necessities and conveniences to, a very extensive neighbourhood. The country round about, and especially towards St. Bees, admirably cultivated, and plentifully strewed with neat and pleasant houses (*g*). In regard to the port, which has a Custom-house, and a proper appointment of officers, it

(*c*) Let the intelligent reader consider, how much better it would have been for the public if all this had been done at once, when Whitehaven was declared a port. It would then have been fifty years forwarder; and in customs, excise, &c. the revenue had been a million more the better for it than it now is.—

(*d*) The transcribing the words of the statute (which otherwise I should not affect) adds the authority of the most authentic record to the evidence already offered of the great efficacy of these ports, in rendering the adjacent country better cultivated and better peopled.—(*e*) Stat. 13. Geo. II. p. 307.—(*f*) Gentleman's Magazine, vol. xviii. p. 5. Where there is also a good description of the country about it, taken by an intelligent person upon the spot.—(*g*) Consider where these changes have been wrought, and the very important doctrine arising from thence; that, with the like care and diligence, they may certainly be wrought any-where.

is now, in consequence of the acts before-mentioned, well secured by numerous and costly works, and has every convenience that its situation will permit. Large ships lie tolerably safe in the road; and, in bad weather, can either run into the port at half-flood, or shelter themselves under the promontory of St. Bees, which is at two leagues distance (*h*). The number of vessels belonging to this place are about two hundred, and of the seamen, constantly employed in the Coal trade, between two and three thousand (*i*).

SUCH is Whitehaven! raised in the space of a century from the hamlet of a village, for St. Bees neither is or ever was a market town, to something more than the nearest city; and all this as much at least by art and attention as by labour (*k*). For it is a point of justice to own, that this great work was originally conceived, gradually conducted and carried likewise to its utmost perfection by the Lowther family, and more especially by the late Sir James Lowther, who was a gentleman of strong parts, and uncommon steadiness of temper, as well as indefatigable industry. He undertook this arduous and important affair in the middle, and with equal sagacity and resolution pursued it, and happily finished what his ancestors had so worthily begun. It is true he raised a vast estate, but I do not praise him for that. He raised the town and port of Whitehaven; in this he was a benefactor to his county, and a friend to his country. I mean not to flatter his memory or his family; but I mean to provoke others to follow his example, in this respect (*l*). I mean something more; to show how practicable it might be to make improvements of a like nature, in several counties, if the government would vouchsafe its countenance and assistance. Whoever thinks this chimerical must be obliged to prove, that the prudence of a single family may be superiour to the policy of a state; and the efforts of a private person, pursuing a private fortune, more efficacious to public welfare, than the wealth of a great nation, directed by the wisest and ablest men it it. I own myself of a contrary opinion, or I had never attempted this work.

THERE are, perhaps, some farther observations that might be made in regard to the coast of Cumberland, but I shall not insist upon them at present for various reasons. I have already, in speaking of the rivers of this county, and more especially of the river Eden, shown that much more might be done for the

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general good of the county and its inhabitants, than has been hitherto (*m*); and the pernicious practice of smuggling, that bane of industry, begun from avarice, supported thro' necessity, and ending in misery and disgrace, entirely suppressed. I have given an instance in Whitehaven, that almost any harbour, may be rendered subservient to these noble purposes with due attention; and therefore, instead of inquiring where works of this kind may be set on foot, with probable hopes of success, I may demand, where, with like pains and perseverance, there is a creek in all Cumberland that would have failed? The difficulty, is not the old difficulty of Archimedes, to find a place; but to find instruments. Let any maritime bay, however inconsiderable, fall into the hands of a Sir Ralph Delaval (*n*), or a Sir James Lowther, and all I contend for will appear as practicable in the performance, as it is plain and probable in the conception. But there is one particular I must mention before I quit Cumberland: The roads to Whitehaven are to be imitated with more facility, and at less expense, than the construction of such another port; and till a proper spirit of commerce arises, let me recommend, as an introductory step, a due regard to convenience. Open and repair the roads between all the towns in the county, so as to make them passable at all times of the year for any carriages whatever, and this will be so useful in promoting domestic trade, and facilitating universal correspondence, that I dare predict, the advantages necessarily flowing from this increased circulation, will produce both the inclinations and the funds requisite to accomplish all other improvements.

THE county Palatine of Lancaster stretches from north to south, with a long line of sea coast very rudely indented by the Irish sea; so that the most intelligible way of describing it, in respect to the purpose of this chapter, will be by dividing it into three peninsulas. Of these, the first is comprehended between the river Duddon, which separates it from Cumberland, and Ken, that parts it from Westmorland: The second lies between the Ken and the Ribble: And the third between the Ribble and the Mersey, which is the boundary between this county and Cheshire (*o*). The first of these, which Camden and other geographers call Fourness Fells, is, in some places, fourteen miles from north to south, but in most not above seven, and about eighteen from east to west; but the line of coast may be reckoned at least ten leagues (*p*). It must be acknowledged, that a great part of it is a very rough and wild country, yet, notwith-

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(*m*) Political Survey of Great Britain, vol. i. p. 144 — (*n*) See his character in the life of the Lord Keeper North, p. 137, 138. by a pen as tender of adulation as of falsehood. — (*o*) Camdeni Britannia, p. 618. Lambardes Historical and Topographical Dictionary, p. 211. Speed's Theatre of the British Empire, fol. 75. — (*p*) That is traced along the shore of the Promontories, from the mouth of the Duddon to the mouth of the Ken.

standing this, is very far from being incapable of melioration (*q*). In point of commodities, the mountains afford veins of various kinds of metal; of iron which is excellent; some, particularly Tilberthet and Cocklebegg, very rich in copper; which if they are not, or were not always wrought to profit, must be ascribed rather to the defect of skill or honesty in those employed, than to any other cause. As there is great plenty of provisions here, and no scarcity either of wool or skins, and as there is a kind of iron-clay, or, as the learned call it, Hæmatites, of which an earthen-ware has been made equal, if not superior, to red china, several manufactures might be carried on to advantage, where labour is so remarkably cheap (*r*). But as the passages into this district are, on all sides, very indifferent, it is in a manner self-evident, that nothing could contribute so much to put the country, and consequently the people, in a better condition, as the making a commodious port upon some of its bays, laying out roads from thence to the adjacent towns; which would quickly prompt, or rather encourage the inhabitants to what they are naturally inclined, an active and laborious industry, by enabling them to carry the fruits of it, as well to foreign as domestick markets (*s*).

If there was such a port, there is no room to doubt that ships might be built there cheaper than in most other places, as timber and iron might be had in the neighbourhood. In order to show that this is not a mere supposition, let it be remembered, that in this county there once stood the large abbey of Fourness, of which there are still very evident remains; and that, by the improvements made by their tenants, the Monks enjoyed a revenue of little less than a thousand pounds a year (*t*). At a small distance from the point of the promontory lies the island of Walney, and between it and the main land are some small islets (*u*), in one of which an abbot, in the reign of Edward the third, erected a fortress, called the pyle of Fouldrey, and under it a little haven (*w*). The former is long ago fallen into ruin, but the

(*q*) There are already a salmon fishery on the Duddon; salt made from sand at Ulverston in the manner hereafter mentioned; a manufactory of cloth at Hawkhead; some resort to the medicinal waters at Rougham near Cartmell; besides the mines.—(*r*) Leigh's Natural History of Lancashire, Cheshire, and the Peak in Derbyshire, p. 86. Philosophical Transactions, vol. xvii. no. cxcix. p. 699.—(*s*) This is Nature's balance: Clear heads, steady minds, robust bodies, opposed to mountainous situations, rocky soils, and austere climates; where, tho' hard labour is always necessary even to subsistence, yet, when industry is joined with ingenuity, it is often rewarded with high wages.—(*t*) Dugdale's Monasticon Anglicanum, tom. i. p. 704. Dodsworth's manuscript Collections in the Bodleian library, vol. xxxix. Speed's, or rather Burton's Catalogue of religious houses.—(*u*) Amongst these there is one called Fownley, i. e. Fowls Island, from amazing numbers of wild-fowl resorting thither; the dung of which collected, and spread on the meadows nearest to it on the continent, makes them so rich that they commonly let from fifty shillings to three pounds an acre.—(*w*) Polyd. Virg. Angl. Hist. lib. xxvi. p. 727. Camdeni Britannia, p. 618. Lord Bacon's History of Hen. VII. p. 279. Amongst the havens of England in the peregrinations of Doctor Boorde.

latter still continues, is the only one this country can boast, and a creek to Lancaster, and tho' there is not much to be said of its trade, yet may it be with truth affirmed, that it is more than double what it was twenty years ago (*x*). This sufficiently shows, there is a proper spirit in the people of this district, which such an encouragement as has been mentioned would quickly enable to produce effects, of which themselves have no ideas at present, but which those examples that have been already, and will be hereafter produced, may easily excite in the minds of those, who are willing to afford a reasonable degree of attention to such subjects.

THE second part of this county, which is comprehended between Westmorland, which divides Fourness from the rest of Lancashire, and the river Ribble or Ribbel, was called by the Saxons Acmundes-Nesse, by the Normans Agmonderness, and now commonly Anderness, extends twenty-five miles from north to south, and about twelve from east to west (*y*). It is not only a much larger country than the former, but wears also a better appearance; and, as things stand at present, is incontestably richer, fuller of towns, has more manufactures, and enjoys a far greater proportion of trade and commerce, which is chiefly to be attributed to its having several ports; as Lancaster upon the Lune, or Lune; Poulton upon the river Ware; and Preston on the Ribble; all of which, tho' but of late years, are in a thriving way, and of consequence the country about them improving (*z*). But notwithstanding all this, it would undoubtedly be no detriment to those ports, a certain and no small advantage to this part of the shire, if a commodious harbour could be opened immediately upon the sea, because none of these ports, at least in their present condition, can admit vessels of any great size, which are ever necessary to an extensive and flourishing commerce, for which this part of the island is perfectly well situated, and abounds with every thing requisite to support it (*a*).

IN such a port, the necessary conveniencies being provided, ships might be built, and the timber drawn from the forests of Wyerdale and Bowland (*b*). This would render many of the commodities highly valuable, of which, in their present state, they make little or nothing; such as fine clays of different sorts, fit for the use of potters and pipe-makers; and contribute, perhaps, to the invention and setting-up of new manufactures, and the im-

(*x*) Additions to the English translation of Camden's Britannia. Melloy de Jure Maritimo et Navali, p. 324. Crouch's View of the British Customs, p. 383.—(*y*) Leland's Itinerary, vol. v. fol. 84. Camden's Britannia, p. 616. Lambard's Historical and Topographical Dictionary, p. 196.—(*z*) Additions to the English translation of Camden's Britannia. Salmon's New Survey of England, vol. ii. p. 641, 642. All the modern descriptions of this shire.—(*a*) Fuller's Worthies of England, p. 105, 106. Beawes's Merchants Directory, p. 580.—(*b*) Leland's Itinerary, vol. v. fol. 84. Additions to the English translation of Camden's Britannia. Salmon's New Survey of England, vol. ii. p. 643.

provement and extension of those that have been set up already; since every thing may be expected from the industry of a people, who, before Leland's time, extracted pure salt from sea sand, by a troublesome operation indeed, but which nevertheless indicated both parts and patience (*c*). They collected heaps of sand upon the sea shore, which, by being often wet and dry, were richly impregnated, and upon these they poured sea-water till the sand became fresh. This water they first evaporated in the sun, and then boiled with slow fires made of turf, out of their mosses, till it produced a clean white salt (*d*). In process of time, and in consequence even of the first attempts, this country would be more fully peopled, when it would be expedient, or rather it would become absolutely necessary to cultivate their mosses, which are large tracts of ground at present totally useless, except for producing turf, which as has been before explained, may be of some importance now, but would cease to be so then; and that this is very practicable they very well know from experience, and have marl and other rich manures in abundance; so that lands which are now the worst, would in a very few years, when commerce had furnished sufficient funds, as well as created new demands, be made as good soil as any in the county (*e*).

OUR learned and accurate English antiquary was very sensible, and indeed complains grievously of the defect of proper materials for the history of this country, which has certainly suffered great changes, tho' no traces of them are preserved by any of our ancient writers, since the time of the Romans (*f*). This wise and great people had, in this part of the county of which we are now treating, at least two very large stations, the ruins of which are yet perceptible, tho' the best judges are very much divided about their names (*g*). It seems to me no unreasonable supposition that things were then in a better state than at present; and tho' I have great reverence for the authority of those who appear to me to think the contrary, yet I must own I cannot help

(*c*) Leland's Itinerary, vol. v. fol. 14. where he mentions the village of Cock-erham as the place in which he saw this process performed. Camdeni Britannia, p. 616, 617. At the end of Ray's Collection of English Words. p. 149.—(*d*) If the curious and inquisitive reader is disposed to inquire more strictly into this method, which, since the salt spring discovered at Barton, is no longer practised in Anderneis, his curiosity may be fully satisfied by consulting the ingenious Dr. Brownrigg's Art of making Salt, p. 135.—(*e*) Leigh's Natural History of Lancashire, Cheshire, and the Peak in Derbyshire, b. i. chap. iii. p. 35.—(*f*) Camdeni Britannia, p. 610. Salmon's New Survey of England, vol. ii. p. 642.—(*g*) There have been clearly, amongst many Roman stations in Lancashire, two very remarkable, and that seem from their ruins great cities, tho' now dwindled into the villages of Overborrow and Ribchester, or Ribelcheſter. Camden makes the first of these Brementonacum, in which he is followed by the learned Dean of York: Baxter calls it Biennetonacis Veteranorum. The latter is in Camden's opinion Coccium, tho' he was half inclined to Ribodunum. Baxter sends us into Yorkshire for Coccium, and will have this to be Rigodunum. Mr. Salmon is clear that Coccium is to be placed at Ribchester, and that the name of Brementonacis belongs to Lancaster.

suspecting that the rivers here were once considerably deeper, and freer from sand, and consequently that the tide flowed, and they were navigable much higher than in our times (*h*). But not to insist too long upon this subject, I will only take the liberty of observing, that perhaps an artificial port might be constructed on the brink of Pilling Moss, and a large, deep, and well defended drain being cut thro' it, would, at the same time, and with the same expense, contribute to render it firm land, and furnish a back-water for scouring the new-made port. How far this may, or may not be practicable, I pretend not to determine; but at all events the observation is harmless, and no inconvenience can arise from it (*i*).

THE last, the largest, and the finest part of the county lies between the two rivers, Ribble and Mersey, extending about twenty-two miles from North to South, thirty, and in some places five and thirty, from West to East. It may be truly affirmed of this, that a more pleasant or a more plentiful region can hardly be found; the air being every where remarkably wholesome, and the soil also fruitful, tho' in different degrees, producing in some places good wheat, in others fine barley, but at the bottom of the mountains especially abundance of oats, and those excellent in their kind (*k*). We may add to these, hemp and flax, which both grow and are manufactured to great advantage by the inhabitants. At Barton there is a salt-spring, not inferior to those in Cheshire (*l*). There are clays of various natures, quarries of stone serviceable to all manner of purposes, in many parts of this district. In mines and minerals few countries surpass it; for here are found most of the several sorts of alum, vitriol, antimony, lead, iron, and copper; the beautiful kennel-coal, which is not barely useful as fuel, but is also converted into many sorts of curious toys, which are very neat, elegant, and which would be more valuable, if the material of which they are made was more scarce (*m*). Here are also coals of other kinds in great plenty; and, which is not a little singular, this part of the country is very well supplied with wood; and to add to all their

(*h*) It seems to me that Mr. Salmon is in the right, that Coccium was Ribchester, and that the Romans had a port at the mouth of the river, which has been swallowed up by the sea. Before this change I conceive the river was deeper, and the tides flowed higher, so that small vessels went up to Coccium; for the rings and anchors found in its neighbourhood, which have so much confounded all the Antiquaries, could only belong to small vessels; and perhaps there was a forge in the neighbourhood, where these and other naval utensils were made. When the port was lost, Preston came in its place, and Coccium fell to ruin.—(*i*) It will appear in the close of this chapter, that something of this sort is at present thought practicable elsewhere, for the very same reasons that I think it not impossible here.—(*k*) Leland's Itinerary, vol. v. p. 83. Camden's Britannia, p. 610. Speed's Theatre of the British Empire, fol. 75. Brome's Travels over England, Scotland, and Wales, p. 230.—(*l*) Dr. Brownrigg's art of making salt, p. 96.—(*m*) Additions to the English translation of Camden's Britannia. Leigh's Natural History of Lancashire, Cheshire, and the Peak in Derbyshire, b. i. chap. iv. Salmon's new Survey of England, vol. ii. p. 647. Beawes's Merchant's Directory, p. 580.

other blessings, they have vast numbers of fine sheep, and as fair and large cattle as any in the kingdom, by which the inhabitants are enabled to make immense quantities of good cheese, which however are sent to domestic and foreign markets under the denomination of Cheshire, because this improvement first prevailed there (c).

IT is the peculiar privilege of at least this part of Lancashire, that the industry of the people is not at all inferiour to the plenty naturally afforded by the country in which they dwell. A stronger proof of this cannot be given, than by enumerating a few of the larger market towns, and the manufactures for which they are famous. Rochedale, upon the river Roche, under the mountains upon the East side of this shire, is extensive and populous, and, with the villages about it, thrives by various branches of the woollen-trade. Bury, at a small distance from it, is chiefly distinguished by the inhabitants making kersey's and half-thicks, and has also some share in the cotton fabricks. Bolton is, and has been long esteemed, the great staple of fustians (p). Wigan, a handsome well-built town, and a parliamentary borough, derives its wealth from a convenient junction of both coal and iron works in its neighbourhood, as well as from coverlets, rugs, blankets, and other sorts of bedding (q). Manchester is a place of such note, and for such a variety of manufactures, that to name it is sufficient; tho' at the same time it may be proper to observe, that notwithstanding it is larger, better built, and contains more people than many cities, yet it is not so much as a corporation (r). Such is the force of industry, unfettered by any restrictions! such the vigour of ingenuity unrestrained by fine-spun regulations! a fact well worthy of being remembered, and attentively considered. To this we shall add Warrington (s) upon the Mersey, celebrated, with the villages round it, for making that kind of linen called huckabacks, of which, in the weekly market here, are sold to the amount of between twenty and thirty thousand pounds a year.

WHEN the inquisitive and judicious reader reflects attentively on what prodigious quantities of every different species of goods must be made in all these places, he will the less wonder at what has been already said (t). of the inland trade and foreign

(c) Camdeni Britannia, p. 610. Speed's Theatre of British Empire, fol. 75. Leigh's Natural History of Lancashire, Cheshire, and the Peak in Derbyshire, b. ii. p. 5. Brome's Travels over England, Scotland, and Wales, p. 230. Beawes's Merchant's Directory, p. 577, 580.—(p) Beawes's Merchant's Directory, p. 580.—(q) See the article Wigan in Collier's Dictionary. Salmon's New Survey of England, vol. ii. p. 674. Brome's Travels over England, Scotland, and Wales, p. 232.—(r) Additions to the English translation of Camden's Britannia. Leigh's Natural History of Lancashire, Cheshire, and the Peak in Derbyshire, b. ii. p. 14, 15. Salmon's New survey of England, vol. ii. p. 646.—(s) Additions to the English translation of Camden's Britannia. See the article in Collier's dictionary.—(t) Political Survey of Great Britain, vol. i. p. 166, 167.

commerce of Liverpool, which is the only port within this district. His sagacity will enable him to connect causes and effects from this detail of facts (*u*). His penetration will enable him to discern how one species of industry has introduced another, how the habit of application has spread from place to place, and how the correspondence and navigation of Liverpool gradually, equally, and continually extending, gave vent to their several productions, and thereby supported, as it still supports, the whole (*w*). His own good sense will show him, that we have not kept him so long in Lancashire to little or no purpose; but that from meditating on what he has seen here, he may spare himself the trouble of going to Holland (*x*), to learn what parts and pains, seconded by a proper degree of patience, will accomplish in any country where they are to be found.

IN order to show that these remarks were made with our eyes open, and, tho' with sensible pleasure, not under any prepossessions, we shall mention amongst so many beauties one or two defects. In the first place, Chat Moss and Marton Moss are very conspicuous, even in this district; and perhaps more of the like disagreeable objects might, on a strict search, be found (*y*). Ormiskirk is a large market town, not far from the sea, yet in a less flourishing condition than any of the rest (*z*). Might not some method be contrived to improve both? If there could, surely nothing would bid fairer than the opening a port upon some little bay of the sea, in the midst of the coast, between the rivers Ribble and Mersey, and making a good road from thence to Ormiskirk, which, with all the adjacent district, would soon feel the benefit of such an indulgence; and, either by the invention of new, to which this would be the greatest encouragement, or the extension of old manufactures, largely repay the necessary disbursements, to whatever they might amount, that such a work could require (*a*). This would complete the

(*u*) When these manufactures were first set up, they made a slow progress, because the materials were dear, and the workmen inexpert, being imitators only of foreign fabricks, as the names of Augsborg and Milan Fustians plainly show. But when they once used, at least in part, materials raised here, and became inventors of new species of goods, all difficulties vanished, and emulation spread industry from town to town.—(*w*) What is chiefly intended to be pointed out here, is the difference in respect to manufactures between domestic trade and foreign commerce. The former, in about two hundred years, rendered them pretty considerable; from the latter, in the eighth part of that time, they are grown prodigious.—(*x*) It was first the policy of the Flemings, from them wisely adopted by the Dutch, to place some staple and some manufacture at every great town. Why should not we be, in this respect, as wise as our neighbours?—(*y*) Camdeni Britannia, p. 611. Childrey's Britannia Baconica, p. 167, 168. Salmon's New Survey of England, vol. ii. p. 646.—(*z*) Leland's Itinerary, vol. vii. part 1st. p. 56. Camdeni Britannia, p. 612. See also the modern descriptions of this country.—(*a*) In regard to the constructing new ports, the public is not tied down either in point of place, time, or money; but may at leisure take the proper methods to render those havens the most commodious, in the shortest space, and with the least charge.

felicity of that part of the country now under our contemplation, which, in its present condition, is wonderfully rich and populous, in comparison of what it was in former times, and even within a century past; which whoever duly considers, and maturely weighs how it has been brought about, will easily see that the same methods, properly applied, and steadily prosecuted, would have the like, or at least proportionable Effects on Fourness and Anderness (*b*), since there is nothing wanting to either but such ports as Whitehaven and Liverpool; and these no doubt might be obtained, if judiciously undertaken, with as little expence as those two ports have cost; and what these expenses are, when put in the balance against the advantages derived from them, those who are acquainted with our revenue well know (*c*). The evidence, therefore, that ought to determine the expediency or inexpediency of the measure, being entirely in the hand, or at least in the power, of those by whom only such works as these can be undertaken, I have, in this representation, done all that a private man can do.

WE are now come to Cheshire, which noble county, as our different subjects led us, we have mentioned more than once already (*d*). At present, a single district is all that claims our attention. This shire is bounded by the sea on the west; and tho' from the borders of Flint to those of Lancashire, between which it is confined, it is not above ten or twelve miles at the most, yet in these kingdoms few have a better claim than this to the title of a maritime province, as having at least forty miles of coast. It derives this benefit from a promontory which shoots itself into the Irish sea, and which Camden from thence, making use of a Greek term, calls a Chersonese, sixteen miles in length, and from six to eight in breadth, in the midst of those two great Æstuaries, or firths, of Mersey and Dee (*e*). This, tho' we find no direct notice taken of it in ancient authors, was certainly in the hands of the Romans, whose twentieth victorious legion was stationed at Chester, then understood to be in this peninsula (*f*). When the Saxons were possessed of this county, Cheshire became a part of their kingdom of Mercia, and this tract obtained the name of Wyrheale (*g*), which however a learned

(*b*) Additions to the English translation of Camden's *Britannia*. Childrey's *Britannia Baconica*, p. 166—169. Leigh's *Natural History of Lancashire, Cheshire, and the Peak in Derbyshire*.—(*c*) These arguments, founded on facts, are not only the most convincing, as lying level to every capacity, but are also the soonest brought to the test of experience, since a few trials properly made would for ever clear the point.—(*d*) *Political Survey of Great Britain*, vol. i. p. 76, 102, 145, 146.—(*e*) *Camdeni Britannia*, p. 456. *Lambardes Historical and Topographical Dictionary*, p. 445. *Speed's Theatre of the British Empire*, fol. 73.—(*f*) *Bedæ Hist. Eccles. Gent. Anglor.* lib. ii. cap. 2. *Lelandi Comment.* in *Cygneam Cantionem*, p. 51. *Camdeni Britannia*, p. 457.—(*g*) *Chronicon Saxon.* p. 95, 96. *Lambardes Historical and Topographical Dictionary*, p. 445. Leland, in his learned notes on his poem on the birth of Prince Edward, afterwards Edward VI. calls this district *Guiralia*, vulgo *Wirehale*, which he describes in his elegy, ver. 573.

antiquary will have to be the contraction of two British words, signifying the blue or the salt sea (*h*); but this seems very improbable, as the word is plainly Saxon. This part of the country was miserably wasted by the Danes, and was far from being recovered at the Norman conquest, tho' before these devastations it appears to have been well settled, and fully peopled. It then assumed the name of Wilavestan, and became one of the twelve hundreds into which this county palatine was then divided (*i*). We are told, that it was once a forest; which may be true, tho' we know no proof that can be brought to support it; much less, that so it continued until the reign of Edward the third (*k*). What might very possibly have given rise to this notion, was the sound of the French name, joined to the new division of Cheshire, about the time of that monarch, when the twelve hundreds were reduced to seven; and this which was the first, recovered its old appellation of the hundred of Wirrall, which it has retained ever since (*l*). It contains, by a moderate computation, above ninety square miles, or about sixty thousand acres of land. It was anciently reputed to be a tract not over-fruitful, tho' always esteemed, in point of climate, equally mild and pleasant (*m*). At present, in consequence of the skill and labour of its husbandmen, there is not a richer or a fairer spot in this island, abounding with every thing desirable or necessary, thick set with villages, tho' there is not indeed a market town in this hundred, but several fine parks, and old seats, and those too frequently belonging to families far more ancient than their dwellings (*n*).

It is impossible to conceive any situation more favourable to commerce than this is; and yet of this the inhabitants have no great share, if we except what arises from the thoroughfare to Ireland, fixed to the well-known village of Park-Gate, which is constant, and is, or might be rendered, pretty considerable. We must not however attribute this to the want of a port, tho' strictly speaking they have none; but, with regard to all the effects of a port, they may be truly said to enjoy both Chester and Liverpool, and most of the creeks dependant upon them (*o*).

(*h*) Baxteri Glossarium Antiquitatum Britannicarum p. 74, 225, in British Vidr hal, i. e. Aqua salsa.—(*i*) Domesday Book sub Titulo Cestre-Scire.—(*k*) Webb's description of this hundred, in King's Vale Royal of England, p. 119.—(*l*) Leland's Itinerary, vol. v. fol. 54. Smith's Treatise, in King's Vale Royal, p. 27. Sir Peter Leycester's Historical Antiquities, p. 190.—(*m*) Camdeni Britannia, p. 456.—(*n*) Camdeni Britannia, p. 456. Speed's Theatre of the British Empire, fol. 73. Sir Peter Leycester's Historical Antiquities, p. 192. But the most authentic proof arises from the arms of all the old families, neatly blazoned. at the close of Smith's Treatise, in King's Vale Royal of England.—(*o*) Thus Hilbrey, Neston, Burton-Head, all creeks to Chester, are in this hundred, which may avail itself of both ports in the highest degree, if the inhabitants had in earnest a turn to navigation and commerce, which some time or other will be the case.

The reason is not less singular than the fact itself. The people thrive and grow rich, from the ordinary and plentiful produce of their lands, for which they have several markets at hand, where they are sure of disposing of them at a good price, and therefore trouble themselves no farther. Another cause, or rather another effect of the same cause, is their having few or no manufactures (*p*). A third, is their being plentifully furnished with every thing they could expect from commerce at their own doors, and in immediate exchange for their own commodities.

THESE are the same with those of the rest of the county, except that they have more corn, and no salt springs, at least that are discovered. It is well known that the staple commodities of Cheshire are mill-stones, salt, and cheese. This last they have in Wyrehall in great abundance, which they vend at Chester on one side, and at Liverpool on the other, and it is very likely have some dealings with Wales, and possibly much greater with Ireland. Our natural historians, ancient and modern, assure us, that the peculiar relish of Cheshire cheese, justly esteemed little if at all inferiour to any in Europe (*q*), arises from something peculiar in the pastures, which they are at great pains to prove, tho' we know none by whom it has been denied. However, we can hardly think this peculiar privilege arises from any occult quality in the soil, tho' that has been very often and very gravely asserted (*r*). We will therefore, without arrogating any thing to ourselves, or pretending to lay the least restraint upon the reader's inquiries or opinion, mention what seems to be the cause of that flavour which distinguishes their cheese (*s*), and which, when mentioned, we conceive will appear in a manner self-evident. It seems then to be entirely owing to those rocks of salt, or as Dr. Leigh will have it, to that kind of basis productive of saline particles, which nature has so liberally distributed, under the surface of the soil, thro' the whole county (*t*). As a proof of this, we shall only observe, that as the brine spring at Namptwich, is the richest, and produces the fairest salt, so the cheese made at that town, and in its neighbourhood, is allowed to be the most excellent of any in Cheshire. (*u*). An instance, which, if it is not decisive in favour of our sentiment, renders it at least so very probable, that the public will pardon us for

(*p*) Speed's Theatre of the British Empire, fol. 73. Additions to the English translation of Camden's Britannia. All the modern Descriptions. — Camden's Britannia, p. 456. Speed's Theatre of the British Empire, fol. 73. Itinerary of Fines Moryson, P. iii. p. 142. Robert's Merchant's Map of Commerce, p. 292. — (*r*) Smith's description of Cheshire, in King's Vale Royal of England, p. 17. Childrey's Britannia Baconica, p. 128. Salmon's New Survey of England, vol. ii. p. 649. — (*s*) These sort of inquiries are exceeding useful in many respects; whereas taking up with occult qualities stops all improvement. — (*t*) Leland's Itinerary, vol. v. fol. 81, 82. vol. vii. P. i. fol. 21. Speed's Theatre of the British Empire, fol. 73. Childrey's Britannia Baconica, p. 132. Additions to the English translation of Camden's Britannia. Salmon's New Survey of England, vol. ii. p. 661. — (*u*) Itinerary of Fynes Moryson, Part iii. p. 142. Webb's description of Cheshire, in King's Vale Royal of England, p. 68.

giving this hint. We may also discover from hence, that it is very far from being a fanciful, and much less a chimerical notion, that in consequence of a long series of observations, a method may be found of judging, with some degree of certainty, as to the interior contents, from the outward appearance, the particular qualities of the water issuing from, and the nature of the produce on, the lands of any country; which, if it could be done, would be unquestionably of great utility, and contribute not a little to an establishment of proper staples, which are the genuine sources of wealth, by the help of skill and labour, (without which it is of little benefit to society) in every the remotest corner of the British dominion (*w.*)

THERE is little more to be said in reference to this county, which, since the improving of certain soils by marling has been thoroughly understood and generally practised, may, in point of cultivation, be considered as a model; and what effects this has had on the manners of the people, and their ways of living, may be collected by comparing things in their present situation with accounts of them in former times, by authors of unquestionable veracity (*x*). This county, that was ever remarkable for its plenty, hath had that plenty much heightened by this management; so that perhaps there are very few shires, even in South Britain, the staples of which produce an higher profit to the possessors (*y*). To this we may attribute what has been before-mentioned, their slackness in manufactures, and which appears from their sending most of their rock-salt to Liverpool, and other parts of Lancashire, where it is boiled in sea-water, and rendered fit for use (*z*). The farther improvement of this county therefore, in this and other respects, as well as the extension of its commerce, all of which are very practicable, must be expected from the increase of its inhabitants; and this we may safely predict will certainly come to pass, from the general plenty init, and the great ages to which, they live, as well as their vigorous constitutions; circumstances that in the course of things can hardly fail. Indeed, upon the skirts of the county, and where the lands are less rich, something of this sort begins already to appear; such as the making mohair buttons at Macclesfield, and of gloves and purses at Congleton; so that by degrees, and the intercourse between the inhabitants of these and other towns in the county, and their connexions with the most industrious part of Lancashire, this inclination may spread, to the great benefit of the people in general, but more particularly to the public,

(*w*) This matter will be farther explained in another part of this work.—

(*x*) Consult Smith's general view of the county and people of Cheshire in King's Vale Royal of England, and compare what he says with modern descriptions.—

(*y*) Political Survey of Great Britain, vol. i. p. 78. there is a computation as to which I am now better informed; the neat amount of the duty at Droitwich being, from the 5th of April 1756 to the 5th of April 1757, l. 71,548 19 6*d*.—

(*z*) Dr. Brownrigg's art of making salt, part ii. chap. 6 p. 138. where he takes notice that it is now exported to Ireland, and many refineries of rock salt set up there, tho' there was a law against this formerly, which has been suffered to expire.

which

which is ever a greater gainer by manufacturers, than by any who are employed in any other laborious kind of life, because they earn more; fare better, wear out more clothes, and of course pay more taxes, that is, contribute more largely to the public stock, which ought so to be laid out, as to be the continual source of private good.

WE have now, according to our former method, passed round the north-east and the north-west coast of South Britain; it remains, that we examine in like manner the south-west and south shore, with so much also as looks to the south-east, leaving the coasts of Wales to be considered afterwards by themselves (*a*). Before we quit these parts, however, entirely, a general remark or two may very fitly come in. The counties we have surveyed are undoubtedly much improved, taking all things together, within the space of the two last centuries, and exceedingly improved within what is already passed of the current century; which to every true lover of his country, must be a very grateful and pleasing observation; nor ought it to afford us less comfort to discern, that tho' they have been thus indisputably improved, yet we have clearly shown that they are still capable of very many, and those too much greater improvements; towards which nothing can so much contribute, as the making good roads, and opening new ports (*b*). That the same effects will follow from those that shall be hereafter made, that we see and feel have actually proceeded from those that have been made within our own memory, will appear as certain as any thing of this kind can possibly do, from the peculiar advantages which these countries have, from produce as well as from their situation (*c*), which will enable their inhabitants to carry on many valuable and growing branches of commerce, and, in process of time, striking out new, more especially to the northern parts of Europe, and to our own colonies upon the continent of America, with unrivalled facility. Besides this, they have already drawn, and will continue to derive, very great benefits from their correspondence with the Isle of Man, the north-west part of Scotland, and more especially with the north of Ireland, to which they send coals, corn, salt, cheese, pewter, tin, and manufactures of very different sorts, most of which are speedily, as well as certainly, consumed (*d*). Their imports, in return, are wool, ore, skins, feathers, hides, which they afterwards manufacture, and sell elsewhere; so that they are at least as much gainers by what they buy as by what they sell, at the same time that they promote industry in those countries, and greatly increase their

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own navigation, which are points of infinite consequence to the public in general, and, on this account, deserve the utmost attention, and all the encouragement that can be bestowed upon them (*e*).

THE first of the south-west counties, of which our present design leads us to take notice, is that of Somerset; which enjoys from the bounty of providence, almost as many and as signal advantages as an intelligent mind could wish (*f*). It is fair, rich, and spacious, two hundred miles in circumference, containing, according to the usual computations, upwards of a million of acres; almost equal in point of size to the island of Majorca, which was once a kingdom; as large as all the Protestant cantons of Switzerland, exclusive of Berne; and but very little inferior to Saxony Proper (*g*). The climate every-where exceeding mild, in the higher parts remarkably healthy. The soil admirably fruitful. The face of the country beautifully diversified with hills and plains, and except on the confines of Devonshire (which nevertheless may hereafter become so), in most places more or less profitable (*h*). Hence arises a variety of valuable products, and scenes of such abundance, as are very rarely to be met with together: For instance, great tracts of land wonderfully fertile in fine corn; several distinguished by their luxuriant herbage; so that, tho' nothing is so common in regard to most shires, it is difficult however to say as to this, whether it excels in arable or in pasture lands (*i*). Some, again, are fit for other purposes, such as the production of hemp and woad. Those ridges of mountains which seem to promise least, from their rough and craggy surfaces, are, notwithstanding rich in metals and in coals. In those of Mendip lead and copper, as also immense stores of lapis calaminaris. There have been lead mines likewise found, in the very opposite part of the county, near Dulverton; and it is highly probable, notwithstanding the numbers known, and vast profits already made, there may be as considerable mines in places not yet wrought, or so much as suspected (*l*). We may add to all these another natural prerogative which this county enjoys, of being watered by many fine rivers, such as the Avon, the Parrat, the Thone, &c. which conduce alike to its fertility, convenience in

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carrying on various manufactures, and to its inland navigation (*m*); so that even upon this slight superficial view, it will be sufficiently evident, that very few countries, whether in this or any other kingdom, are capable of supporting a larger number of people in proportion to their extent; nay, which is more, supporting them, with a moderate assistance from their own industry, in a state of greater affluence, or of enabling them to complete their own felicity, by sending the produce of their lands and labours as well to foreign as to domestic markets; which certainly are the decisive points, that, to the best judges of things of this nature, can alone justify the epithets that we have bestowed upon it.

It is not the sole praise of Somersetshire that nature has done so much in her behalf, we must also allow that the inhabitants have, in a good measure, made a right use of her gifts; in consequence of which, the country is not barely capable of being enriched, but, which is not always the case in like circumstances, really is so. Their husbandmen, by assiduous tillage, extract prodigious crops of different sorts of grain, and draw great sums from what is sold into the adjacent counties (*n*). They raise as large cattle here as in Lincolnshire, and feed many more than they breed, from whence they derive no small profit (*o*). If there be any cheese in this island that disputes the preference with Cheshire, it is that of Cheddar, which many prefer even to Parmesan (*p*). Besides the high-priced Cheddar cheese, the ordinary dairies of this county afford a great deal more of that commodity than they consume, so that many hundred tons are carried yearly out of the county, particularly to Morden fair (*q*). The produce of their mines is very considerable; immense quantities of brass are manufactured in the neighbourhood of Bristol, out of Mendip Hills; and their lead is also exported to a great amount (*r*). But notwithstanding the wealth flowing from these staples, they have (if we may so speak) mines above-ground that yield infinitely more. Their mountains and their plains are covered with multitudes of sheep, the wool of which, however, falls short of supplying their numerous manufactures (*s*). It is not this or that branch of the woollen trade by which they

(*m*) Camdeni Britannia, p. 168. Stukeley's Itinerarium Curiosum, p. 142. Broome's Travels over England, Scotland, and Wales, p. 34.—(*n*) Additions to the English translation of Camden's Britannia. Robert's Merchant's Map of Commerce, p. 289, 290. All the modern descriptions.—(*o*) These and other circumstances I have received from gentlemen living in, and well acquainted with the state of the county.—(*p*) Robert's Merchant's Map of Commerce, p. 289. Haughton's Collections relative to Husbandry and Trade, vol. i. p. 402. Additions to Camden's Britannia.—(*q*) Beauwes's Merchant's Directory, p. 582.—(*r*) I have seen a petition to parliament in the reign of William III. setting forth, that many towns subsisted in Somersetshire by the brass manufacture; and that, by the encouragement and assistance of the legislature, this country might be rendered the chief, if not the only staple of brass, as Sweden is of copper: And therefore praying a duty upon latten wire.—(*s*) A plan of the English Commerce, p. 86, 87. Beauwes's Merchant's Directory, p. 582.

thrive, but they carry on, and carry on with success, almost all its variety of manufactures, from the finest broad cloth down to different kinds of stockings; so that many of their villages are, since the beginning of this century, swelled into towns; and some of their towns, from the number and wealth of their inhabitants, may vie with, indeed outvie, cities (*t*). The vale of Taunton Dean, in respect to its amazing fertility, is only surpassed by the industry of its inhabitants; which is a point we may affirm to be extremely worthy of notice, since it very rarely happens in this kingdom, or in any other, that where, from the natural fecundity of the soil, a plentiful subsistence may be had with very little labour, the people should nevertheless apply themselves, vigorously and steadily, to manual arts (*u*). There is nothing in this account exaggerated; it is a sketch rather than a picture; and if it was our business, or the compass of our work would allow us to treat these things minutely, we have it abundantly in our power to set them in much stronger and fuller lights, without the smallest violation of truth.

WE have done some degree of justice to the natural advantages, and to the disposition of the inhabitants of this opulent district. We are now, which is a point of justice also, to mention its defects, for defects it has, and consequently it may receive improvements. There are very extensive tracts of lands, of several kinds, which tho' they are not absolutely useless, yet are certainly so to a great degree; and tho' some profit may be drawn from them, yet there is no question to be made, that by proper management, they might be rendered infinitely more valuable than they are (*w*). Sedgmore, and several other moors that lie contiguous to it, and comprehend in the whole, according to the most accurate surveys, several thousand acres, have been always reputed a discredit to so fine a country (*x*). Brentmarshes, and the low watry grounds that stretch themselves to a large extent on that side, fall likewise under this description; and we may say the same of Cannington Fens, and the miry tracts in their vicinity, with others of a similar nature in several districts of this county (*y*). To which we may add, tho' some parts of them begin of late

(*t*) I am very well apprized, from particular information, that many of these towns have, at present, nothing near the number of inhabitants they were said to have in Queen Anne's reign, but I doubt those were but random guesses; and therefore, from these more moderate and accurate computations I take my state of things.—(*u*) Robert's Merchant's Map of Commerce, p. 289, 290. See the article of Taunton Dean in Collier's Dictionary. Childrey's Britannia Baconica, p. 32-45.—(*w*) See a discourse concerning the time when England was first divided into shires, by Mr. James Ley, afterwards Earl of Marlborough, amongst the discourses of eminent Antiquaries, published by Thomas Hearne.—(*x*) Leland's Itinerary, vol. ii. fol. 51. Drayton's Polyolbion, song the third. Childrey's Britannia Baconica, p. 32.—(*y*) Camdeni Britannia, p. 167. Sir William Dugdale's History of Imbanking and Draining, chap. xx.

to be enclosed, much larger districts of heathy downs and wide-spread commons, which are, comparatively speaking, poor and barren, tho' not like the marshes (z) : For these are not barely unimproved, but which is much worse, in their present condition at least, are equally noisome and noxious ; prejudicial alike to health and industry ; yielding small and precarious advantages to their possessors ; interrupting the free intercourse, more especially in the winter season, between the better cultivated parts of the country, being in this respect very injurious to trade, and producing few or no emoluments to balance these apparent and real inconveniencies (a).

YET these moors, marshes, heaths, and fens, are, after all, but the bad effects of what has been ever esteemed, and ought to be esteemed, one of the principal benefits bestowed by providence on the finest countries, and which hath been already celebrated as one great prerogative of this ; that is, a variety of great rivers and lesser streams, which, by their extravasations produce as eminent mischiefs, as, when restrained or reduced within proper bounds, they procure signal and extensive benefits (b). It is therefore an assertion that will admit of little debate, that if those heaths and commons were properly enclosed and cultivated, as they might be, and as some portions of this sort of ground have been ; and if these boggy tracts of land could be thoroughly drained, and rendered firm and dry, they would not only cease to be, what they now are, the disgrace of this fair and fertile region, but would likewise become as rich, as fruitful, and as pleasant, as any other parts of the country (c). In this light they would be considerable acquisitions to the several kinds of husbandry already introduced, and might also make room for many new ones that have not yet been practised, and for which lands new drained would be peculiarly fit : and, after large profits drawn from them by such improvements, would be rendered more proper than otherwise they would have been for either arable or pasture grounds (d).

WE may trace the existence of these marshes up as high as perhaps we can trace any thing, at least with equal certainty, in our history. It was in them the Cangi took shelter from the Romans, who have left indubitable proofs

(z) Such as Quantock Hills, Blackdown, Leighdown, Rawley Hills, Hatchwood, and several other tracts either unimproved or but very imperfectly.—

(a) The advantage of feeding cattle in these marshes would not be lessened by draining, unless the proprietors found it more profitable, to convert them when drained to some other uses.—(b) Camdeni Britannia, p. 161-175. Drayton's Polyolbion, Song the third. Fuller's Worthies in Somersetshire.—(c) Herodot. Hist. lib. i, ii. Strabonis Geograph. lib. xvi, xvii. Plin. Nat. Histor. lib. v. Fman. van Meteren, Nederlandsche Historie, B. xxviii. Janicon, Etat. present de la Republique des provinces Unies, Tome ii. chap. xi, xii. §. 4. chap. xv. §. 3, 5, 6. chap. xviii. §. 1, 2, 3.—(d) Gabriel Reeve's Father's Legacy to his sons for the improvement of barren lands, 40, 1670. Sir William Dugdale's preface to his history of Imbanking and draining.

of their becoming at length masters of this country (*e*). Here the Britons made their last efforts against the Saxon power; and here the body of the mighty Arthur was interred (*f*). Hither, in their turn, the Saxons resorted, when the best part of the kingdom was turned into a desert by the Danes: And, in the FEN of NOBLES, Alfred is said to have planned that excellent constitution, that system of mild obedience, or rather of rational liberty, which, as the first of blessings, was derived to us from one of the wisest and best of men (*g*). Thus we see that, however useless now, there were seasons, when, as in Ireland, these watery morasses were looked upon as a kind of natural fortifications. In more settled times however, when such retreats were not necessary, endeavours were exerted, and those too not altogether without effect, for reclaiming these moors and marshes, and for overcoming, in the mean time, the principal inconveniences which they occasioned.

THE chief instrument, in this respect at least, if I mistake not, was the erecting convents or religious houses on such spots as were most proper for this purpose, of which many examples might be given. To instance only in a few. King Alfred founded a benedictine monastery in Athelney, where there was little more than two acres of firm ground in the midst of impassable marshes, occasioned by the overflowings of the rivers Perrot and Thone, a few miles below Taunton; which was much improved, and considerable portions of land recovered by the care of the abbots, who had the title of lords, tho' no seat in parliament (*g*). Michelney or Muchelney, that is, much water, another marsh island, at the confluence of the rivers Ivel and Perrot, had a convent erected by king Ina, or, as is commonly believed, by king Ethelstan, which subsisted to the general dissolution of religious houses (*h*). But, to the purpose we have now in view, there is

(*e*) Tacit. Annal. lib. xii. cap. 32. Camdeni Britannia, p. 368. A Discourse upon the Roman Antiquities discovered near Conquest in Somersetshire, supposed to be the place where the conquest of Britain, by the Romans, was completed. By an anonymous author. Published by Thomas Hearne at the end of Peter Langtoft's Chronicle.—(*f*) Gulielmus Malmesburiensis de Antiquitate Glastoniensis Ecclesie, p. 43, 44, 47. Adami de Domesham Historia de Rebus gestis Glastoniensibus, fol. 72. a. Robert of Gloucester's Chronicle, fol. 134. Lelandi Assertio Arthuri, fol. 21, 22, 23. Camdeni Britannia, p. 166.—(*g*) Asserius de Rebus gestis Ælfredi, p. 33. Chron. Saxon. p. 85. Sir John Spelman's life of King Ælfred the Great, p. 165. This island, from the King's taking shelter therein, with the few Saxon Lords who had the courage and loyalty to adhere to their Sovereign in his distress, received the name of Æthelingagge, i. e. Nobilium Insula.—(*g*) Ex MS. Biblioth. Cottoniana, sub Effigie Neronis, D. 2. fol. 86. Guliel. Malmesbur. de Gestis Regum Anglorum, p. 44. Monast. Anglican. tom. i. p. 202. Reyner. Apost. Benedict. tom. ii. p. 132. Tanner's Notitia Monastica, p. 196.—(*h*) Gulielm. Malmesburiensis de Antiq. Glaston. p. 111. Monast. Anglican. tom. i. p. 197. Tanner's Notitia Monastica, p. 196. In Burton's Catalogue, which is commonly called Speed's, the lands of this abbey are valued at 498 16 3. I have seen some extracts from the Register of this religious house, by which it appears, the Monks, or their tenants, cultivated Wood, or, as they call it, Wode, and a curious account of their method in managing of it.

one above all the rest; Glastonbury, which is said to have been the first, and came by degrees to be one of the richest abbeys in England (*i*). An abbot of Glastonbury ran a causeway of stone and gravel eight miles over the morafs, extending from Somerton to Bridgwater, which to this day bears his name, and is called Graylock's Fosse (*k*). Another abbot, at infinite expence, erected a fair stone church on the high mountain that overlooks Glastonbury, and is called the Torr; which, tho' now fallen to ruin, yet the spire, as high as the church was long, being still preserved, shows plainly to what end it was built, being an eminent and most useful sea-mark (*l*). A third abbot raised the great sluice, by which a large district is defended from the waters, with which it would otherwise have been overflowed (*m*). There might be much weakness, wickedness, and superstition among these monks, more especially in later times, but these mighty and magnificent works, raised and maintained for public utility, are not marks of weakness, wickedness, or superstition, and therefore deserve to be recommended (*n*). For the same purpose of recovering, or at least preserving the lands, there were, from time to time, royal commissions granted, and, in consequence of these, inquisitions and presentments made. In the reign of king James the first a scheme was formed for draining the midland moors, but it was never executed; and yet surely there is nothing impossible or impracticable in such an undertaking (*o*). On the contrary, an ingenious and judicious author, whose candour and public spirit are alike conspicuous in all his writings, has shown, and it is expected will more fully show, that it may be done easily, certainly, and at small expence (*p*).

WE come now to what is our proper business, but to which we could not have spoken intelligibly, if we had treated this subject in another manner than that we have hitherto followed. The coast of Somersetshire receives the Bristol channel into an ex-

(*i*) *Monast. Anglican.* tom. i. p. 1. tom. ii. p. 837. *Reyner. Apost. benedict.* tom. i. p. 2. *Tanner's Notitia Monastica*, p. 193. In *Burton's Catalogue*, the revenue is computed at l. 3508 13 4 per annum. In *Dugdale's Catalogue*, l. 3311 7 4. This was the sum certified by the commissioners to King Henry VIII. as the true value. But upon a subsequent survey by Richard Pollard and Thomas Moyle, Esqrs; which I have carefully perused, they were found to amount to l. 4085 6 8.—(*k*) *Sir William Dugdale's History of Embanking and Draining*, p. 3. *Dr. Stukeley's Itinerarium Curiosum*, p. 145, 146.—(*l*) *Johannis Glastoniensis Historia de Rebus Glastoniensibus*, p. 245. *Adami de Domerham Historis de Rebus gestis Glastoniensibus*, p. 598. *Monast. Anglican.* tom. i. p. 11. It appears that this chapel, which was dedicated to St. Michael, was overthrown by an earthquake, A. D. 1275. and that there was, by a royal charter, an annual fair on the Torr, which began five days before, and ended on the feast of St. Michael.—(*m*) *Leland's Itinerary*, vol. ii. fol. 42. *Sir William Dugdale's History of Imbanking and Draining*, p. 104. *Dr. Stukeley's Itinerarium Curiosum*, p. 146.—(*n*) It appears from the survey before-mentioned, that the lands of this great monastery at the time of the dissolution were well let, thoroughly improved, and their parks, woods, coppices, meadows, commons, fishponds, &c. in the most regular order.—(*o*) *Leland's Itinerary*, vol. ii. fol. 42. *Registrum de Glaston.* *Sir William Dugdale's History of Imbanking and Draining*, chap. xx.—(*p*) *Dr. Tucker*, in his solid and sensible specimen of the ELEMENTS of COMMERCE.

tensive bay, which forms a kind of semicircle, and, if we consider the indented outline of the shore, extends twenty leagues (*q*). At the northern extremity is the famous port of Bristol, but between that and Bridgwater there is not, if I remember right, so much as a creek. A few miles to the west of Bridgwater stands Watchett, called by the Saxons Weced or Wechedport, an ancient, and once a considerable port, but now in a very indifferent state, notwithstanding several acts of parliament for repairing and restoring it (*r*). Minehead, anciently written Munihved, is in a much better condition; the town is neat and well-built; and tho' the harbour is not large, yet it is very safe and convenient, capable of receiving large ships, and much improved from repeated assistance given by the legislature (*s*). West from hence lies Porlock bay, and the town of Porlock, which was heretofore a haven of some note; tho' at present it is little regarded (*t*). But if once the marshes and fens were well drained, the less profitable grounds enclosed, or otherwise turned to advantage, and firm substantial roads made to these towns, by which the communication between all parts of the county, in all seasons, was rendered perfectly open and commodious for carriages of every kind, there is no doubt that they would again revive; and in proportion as the country near them became thoroughly cultivated, well-peopled, and the produce of their mines and manufactures, for there are some in this neighbourhood, and might be more, transported directly to foreign markets, instead of being conveyed, as now they mostly are, coastwise to Bristol, and the manufactures from some of their busiest towns by land carriage, (mark the benefit of good roads) to London as well as Exeter, from whence they are exported, the face of affairs would quickly change, and this part of Somersetshire wear as florid a complexion as any other (*u*). It is therefore hardly to be conceived that in a county where the inhabitants possess so many and so great blessings; know experimentally the prodigious benefits arising from industry, as well when applied to improvements as to manufactures; have such a sense of the importance of trade; and from the weight of taxes and poor-rates, where-ever it withdraws, feels the loss of it so heavily; many arguments should be necessary to persuade them to the very few undertakings which are requisite to make them still happier than

(*q*) Speed's Theatre of the British Empire, fol. 23. Camdeni Britannia, p. 161. Childrey's Britannia Baconica, p. 32.—(*r*) Chronicon Saxonum, p. 105, 126, 129. Lambard's Historical and Topographical Dictionary, p. 483. Camdeni Britannia, p. 161. Stat. 6 Annæ, a private act. 7 Geo. I. cap. 14.—(*s*) Sir Robert Cotton's, commonly cited as Prynne's Records, p. 454, 455, 460. Camdeni Britannia, p. 161. Stat. 12 Will. III. cap. 9, 10. 10 Annæ cap. 24. 11 Geo. II. cap. 8.—(*t*) Chron. Saxon. p. 105, 166. Leland's Itinerary, vol. ii. fol. 63. Lambard's Historical and Topographical Dictionary, p. 276.—(*u*) This would very little, if at all, affect the trade of Bristol; for this would be carrying on a new trade thro' new channels, and only such a trade as could not be conveniently carried on by the old.

they are (*w*). But instead of multiplying these I will conclude with this remark; that by the proposed improvement of their country, their staple commodities will be certainly increased; more room afforded for the cultivation of woad, hemp, flax, rape, teazels, &c. and these commodities being, as far as may be, used and wrought up by their own people; carried either by their boats or waggons to their own havens; their commerce must from thence become the most gainful, and, which is of as great consequence, the best fixed, and its continuance most effectually secured.

We have already mentioned the happy situation of Devonshire, as lying between two seas, and in that essential circumstance unrivalled by any, except Cornwall, which however it far surpasses in regard to size, being, next to Yorkshire, the largest in South Britain (*x*.) It is in this respect, indeed, very remarkable, containing as much land as forms the dominion of the republic of Genoa on the continent; not inferior to all the Balearic islands, which were once a monarchy; and twice the size of Algarve, which is still so (*y*). In point of climate, the vicinity of the sea preserves it from piercing cold, and yet, in the winter, the weather is frequently sharp, and more frequently windy. The country is very beautifully interspersed with hills and vales; and the soil is no less various, in some places naturally fertile, made so in others by the labour and skill of the husbandman (*z*). Yet in this, as well as in the former county, are some heaths and moors, the surface of which being pared off by the inhabitants, is first dried, then burnt, and the ashes, sometimes mixed with lime, ploughed into the earth; which method of cultivation, from its being practised here, has received the name of Devonshireing or Denshering (*a*.) Upon the whole, we may justly style it a rich and pleasant country; since, in different parts, it abounds in all sorts of grain, produces abundance of fruit, feeds great numbers of cattle and sheep, has mines of lead, iron, and silver, but chiefly of tin, in which formerly it exceeded Cornwall, tho' now far its inferior, because, perhaps the people are fallen into methods of labouring to more advantage;

(*w*) It is now a proper season for this undertaking, which would find abundant employment for all the spare hands; and these improvements, once made, would supply immense materials, and give thereby fresh spirit to the manufactures.—(*x*) Camdeni Britannia, p. 144. Speed's Theatre of the British Empire, fol. 19. Childrey's Britannia Baconica, p. 28, 29. Brome's travels over England, Scotland, and Wales, p. 247.—(*y*) See Templeman's Survey of the Globe, Pl. i. viii, ix.—(*z*) Camdeni Britannia, p. 144. Risdon's Survey of Devonshire, vol. i. p. 4. Speed's Theatre of the British Empire, fol. 19.—(*a*) Risdon's Survey of Devonshire, vol. i. part ii. p. 7. Markham's Farewell to Husbandry, p. 25. Gabriel Reeves's Father's Legacy to his son, for the improvement of barren and waste land, p. 18. Mortimer's Art of Husbandry, book iv. chap. 2. p. 79. But in reality this was the Roman method. and is admirably described by Virgil, Georg. lib. i. ver. 84. & seq.

for, as we have elsewhere shown, manufactures thrive here, and upon the coast also they have the herring and pilchard fisheries (*b*).

THE County of Devon is bounded on the North by the Bristol channel, being directly opposite to the coast of South Wales, and open to the south-east part of Ireland. The shore proceeding from Somersetshire, extends at first in a manner due west, for about five leagues, to Mort bay; then, turning south, the land is very irregularly indented, so as to form Barnstaple bay and Biddeford sound, and continues that course to Porridge; and turning again westward, and afterwards advancing north, forms that bay which is called Porridge Mouth, at the extremity of which lies Hartland Point, making in the whole something more than twelve leagues (*c*). The country on this side is not esteemed the most fertile part of Devonshire, but is exceedingly pleasant, finely interspersed with lofty hills and verdant vallies, in which are many large and well-peopled villages. It is thought the sea in past ages, made some considerable encroachments, a tree, thirty feet high, having been found under an hill of sand which the inhabitants had undermined, for the sake (as is customary with them) of manuring their land, till it fell down and produced this unexpected discovery (*d*). As the situation is very favourable for commerce, so the means of maintaining it, as we shall hereafter show, are not wanting; and the numerous bays and lesser creeks afford all the advantages that can be desired for vessels of every size, and to whatever purposes destined. But it must be confessed, that very few of these, speaking comparatively, are at present employed as they might be, or as they probably will be in succeeding times, when our national councils shall be steadily turned to cultivate vigorously the arts of peace (*e*).

THE first port on this coast is Ilfracombe, a place of very great antiquity; being called in the days of Edward the confessor Alfrincombe or Ilfridcombe, that is, the vale of Alfrin. Combe in the west country, is opposed to Down or Don, which implies an eminence; so that, by these additions, the situation of the place is declared (*f*). It is a commodious haven from its natural advantages, but, for its greater security, a pier was long ago built, and a light-house erected, which were of much service.

(*b*) Fynes Moryson's Itinerary, part iii. book iii. p. 137. Speed's Theatre of the British Empire, fol. 19. Robert's Merchant's Map of commerce, p. 289.—(*c*) Camdeni Britannia, p. 149, 150. Risdon's survey of Devonshire, vol. i. p. 78—131. Atlas Maritimus et Commercialis, p. 14.—(*d*) Risdon's survey of Devonshire, vol. i. p. 111. where he observes, the lands thus covered with sand are called burrows, and the place where the tree was found Santon, i. e. Sand Town.—(*e*) Robert's Merchant's Map of Commerce, p. 289. Additions to the English translation of Camden's Britannia. Atlas Maritimus et Commercialis, p. 14.—(*f*) Camdeni Britannia, p. 151. Risdon's Survey of Devonshire, vol. i. p. 121. Speed's Theatre of the British Empire, fol. 20.

But these, and other conveniences, were made entirely at the expense of the owner of the soil; and indeed most of these western ports were supported in this manner. As for instance, that of Watchett, by the noble house of Wyndham; that of Minehead, by the ancient family of Luttrell; and this, of which we are speaking by the Wreys, or, as it is also written, Wray (*g*). Ilfarcombe is a corporation and a borough, tho' it does not, or ever did, send members to parliament; it consists chiefly of one good street, from the church to the sea-side, upwards of a mile long, and is a neat, well-built, populous, and thriving place, which is principally owing to its position, standing close upon the sea, so that ships can run in there when it would be dangerous to enter the mouth of the Taw, in order to go up to Biddeford or Barnstaple; and, for this reason, several of the traders in the last-mentioned town do a great part of their port business here (*h*). In our own times, some disputes arising about the small customary dues paid to the lord of the manor, it was found necessary to apply to the legislature for settling those duties, that were now become requisite for maintaining and improving this haven; which was accordingly done by act of parliament. By this salutary law they are very prudently, as well as clearly settled, and made payable to Sir Bouchier Wray, his heirs and assigns, being lords of the manor of Ilfarcombe: And it is provided, that all the money raised by them, or recovered for forfeitures given by the act, shall be laid out in repairing and supporting the piers, quay, light-house, warp, warp-house boats, and harbour; so that it is not only in a very good condition, the quay being upwards of eight hundred feet long, but a sufficient fund is established for its constant maintenance in that condition (*i*).

A LITTLE to the eastward of this place lies Combe Martin, or, according to the custom of this country, as it is sometimes called, Martin's Combe; so named from its ancient owners the Martins; which at present has only a cove for boats, but is very capable of being improved; yet is chiefly remarkable for a lead mine discovered in the reign of Edward the first, and out of the contents of which considerable quantities of silver were extracted (*k*); but by degrees, or through ill management, it was in no very long time exhausted. However, in the Reign of Edward the third, it was again wrought, and that to larger profit than before. In some short space after this, thro' the civil wars, these works were discontinued, but revived with strong hopes in the reign of Queen Elizabeth, by Sir Bevis Bulmer, a skilful en-

(*g*) Lambardes Topographical and Historical Dictionary, p. 438. Additions to the English translation of Camden's Britannia. Beawes's Merchant's Directory, p. 147, 150, 157.—(*h*) Collier's Historical and Geographical Dictionary. Brown Willis's Notitia Parliamentaria, vol. ii. p. 245. All the modern Descriptions of England.—(*i*) Stat. 4 Geo. II. cap. 19.—(*k*) Camdeni Britannia, p. 151. Collier's Historical and Geographical Dictionary. Sir John Pettus's Fodinez Regales.

gineer, in great credit with that princess and her ministers (*l*). Mr. Bushel, who valued himself on being servant and pupil to the famous Lord Bacon, made some proposals for recovering it a fourth time, a little before the restoration: And towards the close of the last century, it was actually opened with mighty expectations (*m*), but I doubt with little effect, because we have heard nothing of it since. We have in a former chapter, given an account of Biddeford and Barnstaple on the rivers Taw and Towridge (*n*); and are, therefore, next to take notice of Clovelly, which is a small place, dependant as a creek upon the last-mentioned port. It has a pier supported by the ancient family of Cary, to whom the place belongs, and might be made of far more consequence than it is, with some expense (*o*). Hartland, or Hertey Point, is a promontory running about three miles into the sea, and is generally agreed to be what Ptolemy called Herculis Promontorium (*p*), or as the seamen of our times would style it, Cape Hercules. There has been much dispute how it should come by this appellation. An ancient writer tells us, that there was a Pharos of admirable workmanship erected at Corunna, named by the Romans Brigantium, on the coast of Galicia in Spain (*q*), (ad Speculum Britanniae) for the direction of ships bound thither from Britain: It may be that there might, in very early ages, be something of the same kind here; and either dedicated to Hercules as the patron of sailors, or honoured with his name, as looking towards that place where his pillars were once supposed to stand.

ON this promontory there is a town called Herton, which, very probably, is a contraction of Hercules town, where it is practicable to make a convenient port; and a bill for this purpose was brought into the house of commons, in the reign of Queen Elizabeth, but it does not appear that it passed (*r*). There were in those days several eminent patriots of this county, who had seats in parliament, and who took a good deal of pains to obtain some public encouragements for this part of the

(*l*) Risdon's Survey of Devonshire, vol. i. p. 125. Heton's account of Mines, and the advantages of them to this kingdom, p. 2, 3. Fuller's Worthies of England, p. 245.—(*m*) Bushell's Abridgement of Lord Bacon's Philosophical Theory in mineral prosecutions, 4^o. 1659. Heton's account of Mines, p. 2, 3. Additions to the English Translation of Camden's Britannia.—(*n*) Political Survey of Great Britain, vol. i. p. 148.—(*o*) Risdon's Survey of Devonshire, vol. ii. p. 308. Speed's Survey of the British Empire, fol. 20. Crouch's Book of Rates, p. 384.—(*p*) Claudii Ptolemaei Geographia, lib. ii. cap. 3. Camdeni Britannia, p. 150. Baxteri Glossarium Antiquitatum Britannicarum, p. 145.—(*q*) Pauli Orosii adversus Paganos Histor. lib. i. p. 17. Les Delices de l'Espagne, p. 126: This Pharos, by some authors, is said to have been erected by Hercules; and being styled in Latin Columna, was, in succeeding times, corrupted into Corunna; and, being yet more corrupted by our English sailors, is called, at this day, The Groin. (*r*) Sir Simonds Dewes's Journal of the Parliaments during the reign of Queen Elizabeth, p. 132. Additions to the English Translation of Camden's Britannia.

shire, which they very justly thought capable of great improvement, as producing excellent hemp about Cambe Martin and the sea coast, the manufacture of which might have been of great utility; rich mines, for the working of which with less expense it was proposed to employ persons condemned for capital offences; and the herring and pilchard fisheries, for which their ports either were, or could have been, rendered extremely convenient (*s*). But it is not evident that their endeavours met with any great success; which, however, is no reason why they should not be remembered with honour, or that these bounties, bestowed by providence, should not be kept still in view; in order that they may, at a proper season, be further turned to the benefit of the inhabitants than they have hitherto been. A matter of infinite consequence to the nation, in this and every county, since the finding new commodities, of great value, is not of superiour advantage, to the discovery of means to improve those we have (*t*), and therefore in common prudence, as well as from a principle of public-spirit, we should be alike assiduous in respect to both.

THE land declining, when we leave the coasts of Devonshire, to the south-west, the first place we meet with on the Cornish shore is Bude Haven, in all the old maps called Beed's Haven; now not so much as a creek in the Custom-House account, and barely so in the conception of the common people, who sometimes shelter their boats there (*u*). It was in ages past, no doubt, a much more useful place; but, as in many other parts of Cornwall the sea has encroached upon the land, so here that element has been driven out, as appears plainly from the marshy grounds, through which the river Bude runs, below Whalesborough; which Marsh was evidently the old Haven (*w*). It might not perhaps be found a thing impracticable, by cutting a canal from the Tamar to the place last-mentioned, to bring such a body of water into this diminished river, as would once more effectually scour this Haven, which must prove of inexpressible importance to the county, tho' the gaining it should be attended with large expense (*x*). For this being once done, the little river Attery, and the brooks which fall into it, upon which Laun-

(*s*) Sir William Courtney, Sir Walter Raleigh, Sir Francis Drake, Sir John Hawkins, Serjeant Heal, Mr. Champernoun, Mr. Martin, and several others.—

(*t*) We should have a most convincing, tho' at the same time, a most mortifying proof of this, if we would entirely rely on what Mr. Bushell set forth, in a remonstrance to the long parliament, after the death of Oliver, that from the conquest to that time, less than six hundred years, we had exported, as appeared by records, seventy Millions of tons of lead, out of which might have been extracted silver to the value of five pounds per ton, and had thereby lost three hundred and fifty millions sterling.—(*u*) Camdeni Britannia p. 133. Speed's Theatre of the British Empire, fol. 21. Carew's Survey of Cornwall, fol. 118. b.

—(*w*) This very probably might, in a preceding age, be considered as an improvement: for there were times when innings of land, that is, gaining a marsh at the expense of a port, was so esteemed.—(*x*) The cut proposed, if the situation will allow it would not exceed three miles, and before the Canal was begun, all the necessary works at the sea-side, might be previously finished.

ceston is seated, being also made navigable to the Tamar, which surely is very possible, that capital of the county, which even now is a spacious and populous tho' an inland place, would have a direct and commodious correspondence both with the north and south seas, or in other words with the Bristol and British channels; whereas, at present, it has no communication with either. Boscastle, corruptly for Botreaux Castle is the next creek and of no greater significance than the former (y). We may say the same of Portisick, the creek that runs up to Carantack, and several others; none of which serve for any thing more considerable than fishing boats; owing all to the same causes, the sands filling them up, and the soil choking the rills that run into them, so that they are gradually (tho' not irreparably) diminished in size and strength (z). But as these were all once naturally better, so by the assistance of art, and with a moderate charge, there is surely scarce any of them that may not be made harbours again.

ST. IVES, or rather St. Ies, sometimes written St. Ithes, upon a bay of the same name, is in reality the first port now in any esteem that we meet with; and this not very remarkable, tho' heretofore it was a place of great note. It has a few small vessels, and subsists chiefly by the coast trade and pilchard fishery (a). Passing round by the Land's End, we come next to Mount's Bay, on which is seated the town of Penzance, populous, and indifferently well-built, having some ships and a little share of trade; and, as it very easily may, in process of time probably will be rendered, in many respects of much greater consequence than it is (b). As to Helfston, Hellford, Falmouth, Fowey, East and West Loo, and Saltash, as they lie all either immediately upon navigable rivers, or on some of the creeks made by them, they belonged to the former chapter, in which the most considerable have been described (c). What we have therefore to say is no more, than that as things are circumstanced at this juncture, Cornwall is not altogether without havens on either side; and when her foreign commerce and domestic trade shall increase, is, in that circumstance, capable of receiving many improvements. I ought perhaps in prudence to stop here, and leave all further discussions to those who have a nearer connexion with, and a better knowledge of, this county: But I cannot forbear adding, that tho' no country in the world stands

(y) Leland's Itinerary, vol. iii. fol. 95. Camdeni Britannia, p. 141. Speed's Theatre of the British Empire, fol. 21.—(z) Leland's Itinerary, vol. iii. fol. 96. Camdeni Britannia, p. 141. Carew's Survey of Cornwall, fol. 120. Speed's Theatre of the British Empire, fol. 21. John Norden's Topographical and Historical description of Cornwall, p. 74, 77.—(a) Leland's Itinerary, vol. iii. fol. 7. Dr. Boarde's Peregrinations, under the title of Havens. Camdeni Britannia, p. 140. Carew's Survey of Cornwall, fol. 154. Norden's Topographical and Historical Description of Cornwall, p. 36, 37.—(b) Leland's Itinerary, vol. vii. fol. 119. Camdeni Britannia, p. 137. Carew's Survey of Cornwall, fol. 156.—(c) Political Survey of Great Britain, vol. i. p. 148, 149.

more in need of water-carriage than this, since the success of their mines, their manufactures, and their tillage, equally depend upon it, and land-carriage, by reason of their rough roads, is burdensome, or to speak out, oppressive; tho' nature has here done as much or more than almost any-where else, towards facilitating every kind of communication by water; and, which ought to weigh with the present age, tho' no province of this island would make more ample or more quick returns for what might be laid out, yet so it is and I can call a cloud of witnesses to prove it (*d*), this has been hitherto overlooked. The sea in some places suffered, not violently but gradually, to wash away, in others to choke up and render useless creek after creek; at the same time that their rivers, by their very position inviting improvements, solicit them in vain; while these nations raise and expend such immense sums to procure doubtful advantages, and promote specious views, often precarious, and sometimes at an amazing distance.

THIS county, or, with more propriety, this noble dutchy, which makes the south-west extremity of Great Britain, deserves, for many weighty reasons, great attention. It is, like Spain, a peninsula, surrounded on all sides by the sea, except on the east, where it is bounded by Devonshire, from which it is divided by the river Tamar, a broad and beautiful stream, the outfall of which affords various harbours and creeks to both counties (*e*). In point of size, Cornwall, tho' it has been certainly diminished, notwithstanding the silence of history, either by the subsiding of the land, or encroachments of the sea, and perhaps by both (*f*), is, as any one may collect from the most accurate maps, still considerably larger than our accounts commonly make it, and, in my opinion, must in that respect be at least equal to the dutchy of Parma, and but little, if at all inferior to the island of Majorca (*g*). Some have thought the shape of this county to resemble that of the whole island of Britain, the east and broadest side being accounted the base, and the Land's End representing the northern extremity of our island;

(*d*) Stat. 23 Hen. VIII. cap. 8. Leland's Itinerary, vol. vii. p. 119. et seq. Carew's Survey of Cornwall, fol. 27, 154, 157. Norden's Topographical and Historical Description of Cornwall, p. 36, 37, 41, 42, 68, 75. Philosophical Transactions of the Royal Society, vol. x. no. cxiii. p. 293. where Dr. Daniel Cox affirms the land-carriage of sea-sand, used as manure for land in this county, was then computed at thirty-two thousand pounds per annum.—(*e*) Lambard's Historical and Topographical Dictionary, p. 368. Carew's Survey of Cornwall, fol. 98, 99. Risdon's Survey of Devonshire.—(*f*) The constant tradition in this country is, that there was formerly a tract of land called the Lionels, extending towards the Scilly islands, now either sunk into or swallowed up by the sea. Camdeni Britannia, p. 136. Carew's Survey of Cornwall, fol. 3. Fuller's Worthies, p. 214. The learned and ingenious Mr. Barlase's two discourses in the Philosophical Transactions, vol. xlviii. p. 55, 67. See also his ancient and present state of the isles of Scilly p. 94, 95, 96. This tradition seems to receive some countenance from the passage hereafter cited from Diodorus Siculus, who, in all probability, drew his lights from very ancient writers.—(*g*) Templeman's Survey of the globe. pl. viii, ix. The maps of Cornwall, if the longitude be truly laid down, make it too short by the scale of miles.

and if we view it in this light, the coast in proportion of its size is as much if not more indented (*h*). It is from hence as we may easily conceive, that it enjoys most of the advantages, and is subject likewise to some of the inconveniencies of an insular situation; is of great consequence in regard to the variety and value of its products, and very capable of being rendered of much greater consequence, if, as we have before suggested, it was favoured by the public with a moderate degree of attention, some assistance, and a few necessary indulgencies, which it would certainly, speedily, and very largely repay.

THE Climate of Cornwall, as we have already observed, is remarkably mild, subject however to wet seasons, and often disturbed with high winds, which nevertheless purge the air, and render it extremely healthy (*i*). The middle part of the country is high and rough, which, which is apt to give travellers a worse opinion of the whole than it deserves, for the low lands towards the sea, or at least the greatest part of them, are equally pleasant and fertile. As it lies at so great a distance from the capital, it was late before improvements were made here; and, from a variety of causes, these improvements were at first rather languid than vigorous, but since they have been prosecuted with spirit, they have produced and are daily producing, very signal and surprising changes. Grain of all sorts comes to full maturity; and they have one, which is the pillas, or naked oat, that is in a manner peculiar to this country (*k*). All the different kinds of fruit are raised, and raised in high perfection. Their sheep, which were formerly clothed only with hair (*l*), bear now, as they have proper care taken of them, as good wool as any other sheep: their horses are small but strong; and their breed of black cattle grow larger, which is an effect of their commons being many of them enclosed; and yet the most intelligent inhabitants are exceedingly sensible, that tho', by introducing new methods of œconomy, their country is in a far better condition than it anciently was, it may, by further application, and the help of new lights, be still improved much beyond what it is.

THE tin mines in Cornwall were, in all probability, wrought before the Romans came into this island (*m*); and tho' some

(*h*) The port of Falmouth, taking the indented line of coast thro' all the creeks, is thought to measure as much as from Falmouth to London, which is two hundred and twenty miles.—(*i*) Camdeni Britannia, p. 135. Carew's Survey of Cornwall, fol. 5. Childrey's Britannia Baconica, p. 3, 4.—(*k*) Mortimer's Art of Husbandry, vol. i. p. 136. This, which the common people call pill-corn, is excellent for fattening of animals; and, in point of price, little inferior to wheat.—(*l*) It was common to call their fleece Cornish hair: So that from hence we may see, care and skill are as essential as climate.—(*m*) Diodor. Sicul. Biblioth. Hist. lib. v. p. 209. Strabon. Geograph. lib. iii. p. 147, 175, 176. Pomp. Melæ de Situ Orbis, lib. iii. cap. 6. To these we may add the authority of Timæus, as cited by Pliny. It seems therefore, in some measure, certain, that it was the riches drawn from the tin mines, which gave the Romans the first notice of Britain, and it would have been strange, if, when masters of the isle, this should be the last corner visited, stranger still, if not visited at all.

learned men have inclined to doubt whether that celebrated people extended their conquests hither, yet of late the frequent discoveries of great quantities of their coin, urns, and other remains, seem to have put this out of all question (*n*). These mines have been ever since wrought, as they still are, with great advantage. Since the beginning of the present century, a thing foreseen by John Norden, and which James the First might have anticipated, if he had taken that inquisitive and indefatigable man's advice (*o*), their copper mines are become of an equal value. Beside these they have lead mines rich in silver; and no contemptible parcels of gold are sometimes found amongst their tin; to which we may add almost all kinds of semi-metals; variety of beautiful stones that resemble gems; and an innumerable diversity of slates, clays, earths, &c. highly worthy of note, and which are capable of being applied to many uses (*p*). The manufactures of leather and of wool are, within these few years, become very conspicuous and profitable; to which we may join the pilchard and other fisheries of cod, hake, lyng, salmon, herring, &c. which are also articles of consequence (*q*). There is no relying entirely even upon the most judicious calculations, otherwise I think I should depend upon a computation that has been made of the products of Cornwall, as coming in the whole to about half a million per annum. Three fifths of this are supposed to arise from their tin and copper mines; another from the rest of their mines, and native commodities; and the remaining fifth is held to be about the value of their manufactures and fisheries (*r*).

(*n*) Camdeni Britannia, p. 138. where he makes the Uzella of Ptolemy, Loftwithiel; as he had before made the Voluba of the same writer Volemouth, i. e. Falmouth. Baxter (p. 254) makes Voliba or Voluba, Grampound; and Uxella, so he writes it (p. 257), Saltash, the true name of which is Esse, and from its situation near the sea, Salt-esse, vulgarly Saltash. See Dr. William's account of Roman antiquities found in Cornwall, in the Philosophical Transactions, vol. xli. no. cccclviii. p. 465-484.—(*o*) At the close of his description of this country, addressed to that monarch, he subjoins a postscript touching his majesty's minerals in Cornwall, in which he informs him of what has been found since exactly true, and of which he might then have availed himself, which is one instance out of many of the folly of postponing.—(*p*) Camdeni Britannia, p. 134. Fynes Moryson's Itinerary, part. iii. book iii. chap. 3. p. 136. Carew's Survey of Cornwall, fol. 6-19. Norden's Topographical and Historical description of Cornwall, p. 11-18. Woodward's Natural History of English fossils, vol. 1. p. 5. where he asserts, that the tin found in this one county of Cornwall, to say nothing of the excellency of it, is superiour in quantity to all that is got in the world besides. Of this, from his consummate knowledge in these matters, as well as from his extensive correspondence in relation to them, he may be esteemed to have been a competent judge.—(*q*) Carew's Survey of Cornwall, fol. 28, 35. Norden's Topographical and Historical description of Cornwall, p. 22. Childrey's Britannia Baconica, p. 16-20, 26. Houghton's Collection for the improving husbandry and trade, vol. iii. p. 307, 328. Atlas Maritimus et Commercialis, p. 104.—(*r*) Norden in his Topographical and Historical description of Cornwall, p. 14. tells us, the tin mines in his time (James I.) produced between thirty and forty thousand pounds per annum, at between twenty and thirty pounds the thousand. In 1692 they produced seventy thousand pounds, at twenty-five pounds a thousand. It would be no difficult matter both to increase the quantity and raise the price, which is now, however, upwards of thirty pounds a thousand.

As great a sum as this may appear, I conceive it to be rather below the real income, and that, in a very few years, the annual produce of this very rich and yet very improveable county, might be at least doubled, by a few easy, and none of them very expensive, establishments: Such as the erecting an office of assay in each of the coinage towns, viz. Lefkard, Lostwithiel, Truro, Helston, and Penzance, or in more places if it should be found convenient, where the worth of their ores might be settled with certainty, and their values certified by authority (i): By the founding a school, and endowing a single college, for educating youth in mechanics and metallurgy, and giving a comfortable maintenance to a few persons capable of teaching these branches of knowledge, or who may distinguish themselves by new inventions in regard to machines, or for discoveries in respect to minerals and metals (t): By putting the exportation of tin under a proper regulation, or encouraging the manufacturing of it here, which might be done with vast advantage both to the inhabitants of Cornwall and to the nation in general (u): By the allowing coals to be imported from Wales duty free, or under a small duty; which would enable the people in this country to melt their own copper, and to make innumerable other improvements from which they are now precluded. If this should be objected to as injurious to the revenue, let it be considered, whether some hundred acres, in proper parts of the country, might not be assigned out of the Dutch lands, for maintaining wood for this service only, the profits of which woods would defray the expense of the two former establishments. It may be objected, the soil or the air of Cornwall is unfriendly to timber; to which I reply, it may be shown from record that it was disforested by king John (w); and there is no fear that trees will grow, if those who are to be paid their salaries out of their produce are appointed overseers of these woods. This would unquestionably encourage and put it in the power of the people of Cornwall to erect salt-works also, which would be very beneficial to their fisheries (x); and turn many of their minerals to vast profit, which are now useless, or if any thing

(i) This is so natural and so very plain and obvious a benefit, that we need not wonder it was long since pointed out, but rather, that it has not yet been carried into execution.—(t) We are told by Mr. Bushell, that he was enjoined by his master Lord Bacon, in case he succeeded by the instructions he gave him, to erect and endow such a college; and this, he says, he fully intended, and to have placed it in the city of Wells at the foot of Mendip hills, those great magazines of metals, in Somersetshire.—(u) This has been often proposed, and, if I am not misinformed, was some years ago maturely considered, and not rejected on the merits, but disconcerted by a melancholy event.—(w) Camden's *Britannia*, p. 142. Bishop Gibson, in his cursory annotations on the English translation, informs us, that the fact is unquestionable, and that the instrument is dated March 22, in the fifth year of king John, beginning, *Johannes Dei Gratia*, &c. and reciting, *Sciatis nos deforestasse totam Cornubiam*, &c.—(x) Hinted first by Mr. John Collins in his Discourse on Salt, and would be productive of many advantages, and since allowed by the ingenious Dr. Browrigg to be very practicable, even by the heat of the sun.

be drawn from them, it goes into the pockets of foreigners. I must beg leave to add to these what I believe was never before suggested, that tho' there are no great hopes of having, with the utmost care, any rich wines from Cornwall, yet it is far from being improbable that the juice of their grapes might be employed in turning their own copper to verdigris with very great profit (y). In this, as well as in some other cases, we are apt to under-rate our own productions, and having once found them not so good as we previously expected they should be, very preposterously conclude from thence they cannot be good for any thing (z).

As we passed from the north side of Devonshire to the coast of Cornwall, so now we proceed from thence to the southern coast of the county of Devon. From the mouth of Plymouth harbour to the Start Point, there are several inlets or creeks, which with some cost and care might be rendered advantageous, that at present serve only for fishing boats. Amongst these there are two that were formerly reputed ports of some note. The first is that of Armouth, which however was always dangerous on account of rocks at the entrance, into which Philip King of Castile was driven in the reign of Henry the seventh (a). The other is Salcombe, that is the Salt Vale, now so choked up as to be in a manner useless (b). Between the Start and Combe's Point there is a deep and spacious bay. A little beyond this lies the harbour of Dartmouth. The coast, winding from thence to the north-east, shoots out into a promontory called Berry Point, which makes one side of Torbay, where there is a good road, but, except the creek of Brixham, no port (c). Beyond this lies Tingmouth, a creek of no great significance except in French histories, where it is described as a great port, and a few fishing barks that were burnt there in 1690 are converted into frigates and men of war. This accident proved an advantage to the place which was speedily rebuilt by the money arising from a brief (d).

IN the former chapter we have spoken of Exeter, and some of the creeks dependant upon it, lying on the river Ex. To these we must add Sidmouth, which was anciently a port, at present a creek, to which belong the most and the best fishing

(y) Piganiol de la Force Description de la France, tom. iv. p. 60. Dictionnaire Univerfelle de Commerce, tom. iv. col. 1178.—(z) Dr. John Beale's nurseries, orchards, profitable gardens, and vineyards encouraged, London, 1677, 4^o. p. 21.—(a) Leland's Itinerary, vol. iii. fol. 25, 30. Polyd. Virgil. Anglic. Hist. lib. xxvi. Bacon's Works, vol. ii. p. 349. This event happened A. D. 1505.—(b) Leland's Itinerary, vol. iii. fol. 30. Risdon's Survey of Devon, vol. ii. p. 225. Additions to Camden's Britannia,—(c) Leland's Itinerary, vol. iii. fol. 31. The Dutch fleet rode here, A. D. 1688.—(d) M. de Quincey Histoire Militaire de Louis XIV, tom. ii. p. 330. Histoire de Milice Francois, tom. ii. p. 491. P. Daniel Histoire de France, tom. x. p. 155.

vessels on this side of Devonshire (*e*). Seaton is yet less considerable, tho' esteemed by Camden and the ablest of our Antiquaries to be the moridunum of the ancients (*f*). Baxter indeed is inclined to bestow that honour upon Topsham, drawn thereto perhaps by contemplating the present state of both places (*g*). But without all doubt Seaton was once a very capacious port, since the Danes entered it with a very powerful navy, and landed from thence a numerous army, which were soon after totally routed by the Saxon Monarch Athelstan; and no fewer than seven of their Princes, whom our old historians honour with the title of kings, were slain in this fight, and buried at Axminster (*h*). The truth seems to be, that the port is overwhelmed by the ruins of the old town, undermined by the sea. The inhabitants of the two villages, Bear and Seaton, struggled hard to recover it, at least in some degree; and when they found this surpassed the strength of their purses, they applied for and obtained a brief, which however did not bring in a sum sufficient to enable them to compass their design (*i*). These are circumstances some of our most judicious writers have preserved, and that ought not to be buried in oblivion. The commerce driven hither from the great ports of Plymouth, Dartmouth, and Exeter, occasions no doubt the less attention to be paid to places that would be thought of great consequence in other countries; and some of them might, without question, be rendered so in this; the produce of which opulent province, if these ports were all open, is very able to support them (*k*).

THE land along the south coast is rich, well managed, and so beautifully planted, that it has obtained, as it well deserves, the title of the garden of Devonshire. A country fruitful in itself, much improved, and continually improving. The Southams, which lie between Torbay and Exmouth, are particularly famous for a most vinous and strong-bodied cyder, that sells upon the spot for as much as most foreign wines (*l*). To the various manufactures of wool, and to the most valuable manufacture of flax, and that of lace, for which the inhabitants of Devon have

(*e*) Leland's Itinerary, vol. iii. fol. 42. Speaking of Ottermouth, Budely, or Salterne haven, which lies a little to the south of this, he says, that within less than an hundred years it had been well frequented by ships, but then it was clean gone.—(*f*) Britannia, p. 149. Salmon's New Survey of England, vol. ii. p. 836.—(*g*) Baxteri Glossarium Antiquitatum Britannicarum, p. 180. He supposes Moridunum to express the British Appellation, Mor iu dun, i. e. Magnæ Maris Oppidum, which answers exactly to Seaton.—(*h*) Chronicon Saxon, p. 112. Leland's Itinerary, vol. iii. fol. 43. Risdon's Survey of Devon, vol. ii. p. 59. This battle was fought A. D. 938, upon Brunedown hard-by.—(*i*) Leland's Itinerary vol. iii. p. 42. Harrison's Description of Britain, p. 59. Risdon's Survey of Devon, vol. ii. p. 59.—(*k*) This appears manifestly from the very last instance, both Seaton and Bear being far more considerable places before they lost their port.—(*l*) Leland's Itinerary, vol. iii. fol. 31. where he tells us the South-hams are the fruitfulest lands in Devonshire; but cyder was not known in his time, and many like improvements may be made in ours.

been long conspicuous, they have lately added that of tapestry and carpets, exquisitely beautiful in their kind, and tho' hitherto these rich pieces of furniture are very expensive, as the best manufactures ever must be when introduced, yet they bid fair in due time for a general reception, which will enable them to give bread to a multitude of people of both sexes and of all ages, as well as in various ways (*m*). Besides these and their fisheries, which are considerable, and many other articles, the people of Devonshire have great resources in their mines of iron, tin, and lead which is exceedingly rich in silver (*n*). These, tho' at present little attended to, will probably in the next age, when those whom commerce hath enriched come to find a difficulty in employing their money, be wrought, and wrought effectually, as they were heretofore dropped chiefly on the score of expense, and because there were many and those more certain means of making wealth turn to an immediate profit (*o*). But the more manufactures there are in any county, especially if the raw materials be there, or can possibly be planted there, as is the case in respect of wool, flax, and tin, in regard to Devonshire, the better for the inhabitants, who are always secure of employ in some or other of them; consequently equal industry will be continually exerted, goods will come to market so much the cheaper, and, where there are ports, be sent even to foreign markets upon such terms as will secure their commerce against all competitors, and thereby conciliate private gain with national interest; a point ever to be sought, and here, if any-where, to be obtained.

THE next county, proceeding still Eastward, is that of Dorsetshire, alike happy in a mild, pleasant, and wholesome air, and not less so in a deep, rich, and fertile soil, finely diversified, as being level towards the north under the high lands which divide it from Somersetshire, where there are fine arable grounds that will yield large crops of different kinds of grain: But on the south, from the borders of Hampshire, by the sea-coast, almost as high as Dorchester, that is, twenty miles in length, and four, or in some places five in breadth, is a heathy common, which renders this delightful county less populous than it otherwise would be. Between these, from east to west, run a ridge of hills, abounding with sweet and short herbage, which nourishes an infinite number of sheep, equally esteemed for their flesh and fleece, and which ridge of rising grounds, after our Saxon an-

(*m*) By particular information, which the reader may depend upon.—(*n*) The mines at Bearferris hold a great quantity of silver, and were wrought by Sir John Maynard: Besides these there were mines at Ziras Newton, near Exeter, which held thirty ounces in a ton of lead, and others little inferior to these, which, when the mystery of mine-working comes to be better understood, will certainly invite adventurers hither.—(*o*) When the people in this county fell into manufactures, the tanners going into Cornwall, the mines there were quickly wrought to more advantage than ever; and for the same reason, whenever the number of people increases beyond the demand for manufactures, the mines will be again opened, and their produce manufactured here.

cestors, we still call Downs (*p*). It is also very plentifully watered, and in all respects so admirably suited both to pleasure and profit, that we need not wonder it was so particularly distinguished by the Romans, or to find it so filled with elegant towns spacious churches, and well-seated villages by the west-Saxons (*q*). It afforded to those judicious, attentive, and indefatigable nations all the necessaries and conveniencies of life, and appeared at the same time of an extent sufficient, as well as in its nature capable, of receiving almost every species of cultivation that can with propriety be styled an improvement (*r*). In order to make this more perspicuous, it may not be amiss to observe that this fair and fruitful province is considerably bigger than the dutchy of Mantua in Italy, nearly equal to the Dutch province of Guelderland, and exactly of the same size with the island of Madeira (*s*); and, as we shall presently see, in regard to its produce, by no means inferiour to any, I had like to have said, and perhaps even then I should not have been very much mistaken, to all of these.

DORSETSHIRE yields many, and those too commodities of great value. The quarries in Purbeck and in Portland supply stones of different qualities, suited to various uses, and in prodigious quantities, with some, and that too very rich and beautiful marble (*t*). The best tobacco-pipe clay is found within two miles of Corft Castle in Purbeck, and likewise in Hungerston Hill in the neighbourhood of Poole; copperas stones upon the greatest part of the coast, of which alum was made, under the direction of a noble family, in the earlier part of the last century, tho' now neglected. Wild madder of which little notice has been taken, grows freely about Blandford, Somervile, and several other places; which is a plain indication that this valuable and useful die might be raised with the utmost facility here (*u*). Between Bemister and Bridport the land produces the best hemp in England. Flax also thrives exceedingly well in many places (*uv*). There was formerly great store, and even now there

(*p*) Leland's Itinerary, vol. iii. fol. 43. Camdeni Britannia, p. 154. Speed's Theatre of the British Empire, fol. 17. Coker's Survey of Dorsetshire, p. 2—5. Stukeley's Itinerarium Curiosum, p. 152-168, 181-183.—(*q*) The Romans had in this county many more stations and summer-camps than those of which we have any notice in the Itinerary, or else-where, as appears incontestably from their remains. The kindness the Saxon monarchs always preserved for it is no less clear, from the number of palaces they had in it, the stately ministers which they built, and the express directions given by them that their bodies should be interred in those monuments of their piety.—(*r*) Childrey's Britannia Baconica, p. 29. Salmon's New Survey of England, vol. ii. p. 821. Willis's Notitia Parliamentaria, vol. ii. p. 426.—(*s*) See Templeman's Survey of the Globe, pl. i, vi, ix, xix.—(*t*) Coker's Survey of Dorset, p. 39. Houghton's Collections for the improvement of husbandry and trade, vol. ii. p. 26. Atlas Maritimus et Commercialis, p. 12.—(*u*) Fuller's Worthies of England, p. 278. Woodward's Catalogue of English fossils, vol. ii. p. 63. Additions to the English translation of Camden's Britannia.—(*uv*) Fuller's Worthies of England, p. 278. Childrey's Britannia Baconica, p. 29. Willis's Notitia Parliamentaria, vol. ii. p. 246.

is no want of timber (*x*). Grain of all sorts they have in much abundance (*y*). There may be counties where they feed more, but few breed better cattle, and scarce any, how much larger soever in extent, approach any thing near it in the number of sheep; and there are some pastures said to be so salubrious, that in them these useful but delicate creatures are never known to be seized with the rot (*z*). To this, if we add that most kinds of fruit come here to as full maturity as in any part of the island, it will justify all we have said in commendation of this county.

As this shire is so very bountifully endowed by nature, the benefits by her bestowed have been likewise gratefully improved by art; and, being fruitful in commodities, it is far from being deficient in manufactures. Salt was anciently, and tho' now practised only near Poole, might be made with great ease and to advantage, upon the whole coast (*a*). Thread and linen are the sources of a comfortable maintenance to the inhabitants of several villages and little towns, as lace also was formerly. That is now removed into Devonshire; and at Blandford, where it once flourished, and in the neighbouring villages, the common people gain their living chiefly by button making, which is a thriving trade (*b*). Dorchester was distinguished in the last century for its fine broad-cloth, as it still is for its serges, for the best kind of malt, and for excellent malt liquor, which renders it known in almost all parts of Europe (*c*). Sturminster, and the country about it, is celebrated for its stockings, which industrious, tho' now less lucrative employment, is likewise carried on in Wareham and the villages about it (*d*). Shaftesbury and Sherborne flourished by the cloth manufactory, which, as we have said, was once the main support of Dorchester, but is now in a great measure removed into Somersetshire (*e*). The fishery upon the coasts is very considerable,

(*x*) Coker's Survey of Dorsetshire, p. 5, 87, 117. Additions to the English translation of Camden's Britannia. Salmon's New Survey of England, vol. ii. p. 822.—(*y*) Camdeni Britannia, p. 154. Speed's Theatre of the British Empire, fol. 17. Fuller's Worthies of England, p. 277.—(*z*) Coker's Survey of Devonshire, p. 4, 5. Speed's Theatre of the British Empire, fol. 17. Fuller's Worthies of England, p. 277. Stukeley's Itinerarium Curiosum, p. 181. Salmon's New Survey of England, vol. ii. p. 832, 833.—(*a*) Camdeni Britannia, p. 154. Coker's Survey of Dorsetshire, p. 10. Fuller's Worthies of England, p. 277.—(*b*) The linen manufacture flourished here in Dr. Fuller's time; now the people of Somersetshire and Wilts interfere; but, according to my information, lace, amongst other manufactures, was formerly made to a large value at Blandford and near it.—(*c*) Coker's Survey of Dorsetshire, p. 5, 69. Fuller's Worthies of England, p. 277.—(*d*) Since the invention of the stocking-frame, it has put, in a great measure, knit-stockings, which employed a multitude of people out of use. But, if other means of gaining their bread can be found for such persons, as in former times earned it by this, as surely there may, then there is no hurt, but a great deal of good done by this ingenious invention.—(*e*) See all the modern accounts of both places; tho' my informations were from persons who had, themselves, examined into their present state very particularly.

of Mackrel more especially about Bridport (*f*), where they were sometimes caught in such Plenty, as is said to have tempted the farmers to manure their land with them; but that practice is now discouraged, as being thought to corrupt the air.

WE have, in the former chapter, mentioned several ports in this county, so that there remain but two which claim our notice here, each of which, however, is very extraordinary in its kind. Lyme, Lyme Regis, or King's Lyme, may be accounted a place of great antiquity, since it appears that salt was boiled out of sea-water there near a thousand years ago (*g*). It appertained then unto, and continued long in the Possession of, the convent of Sherborne, but came into the hands of the crown about the twelfth year of the reign of Edward the first, who granted it to his queen Eleanor, having some years before enfranchised and made it a parliamentary borough (*h*). In Edward the third's time the fee-farm of this place was settled at thirty-two mark's; and Lyme, in his reign, was so eminent a port, that it furnished the king with four ships (*i*) in his expedition against Calais. In the reigns of Henry the fourth and fifth it had suffered so much by the French, that upon an application to those princes successively in parliament, their fee-farm was reduced to five pounds (*k*); and, in the time of Edward the fourth, their trade being impaired, and their port decayed, it was brought down to three pounds six shillings and eight pence (*l*). In the reigns of queen Elizabeth and king James the first, provision was made by the legislature for the repair and support of their harbour (*m*); and their charters have been confirmed by subsequent monarchs.

THE town of Lyme stands on the declivity of a craggy hill, which gives it a fair appearance at a distance, tho' the inhabitants feel some inconveniencies from this situation. It may certainly be said to owe the figure it has made, and still makes, to an harbour, which, as from the description will be clearly seen, is such an one as is not to be found in this, or perhaps in any other kingdom, and seems to have been of the inhabitants

(*f*) Fuller's Worthies of England, p. 277. Additions to the English Translation of Camden's Britannia. Atlas Maritimus et Commercialis, p. 12.—(*g*) MS. in Biblioth. Cottoniana. FAUSTIN. A. 2. fol. 23 a. Camdeni Britannia, p. 154. Coker's Survey of Dorsetshire, p. 10. where part of king Kinwulf's charter, A. D. 774. is cited.—(*h*) Rot. Patent. Anno 12 Edw. I. m. 14. where the same liberties are granted to the freemen of Lyme, that those of Melcombe had lately obtained.—(*i*) Rot Patent. Anno 5 Edw. III. m. 29. n. 76. Hackluyt's Voyages, vol. 1. p. 119. Madox's Firma Burgi, cap. ii. §. xii. p. 44.—(*k*) Rot. Patent. Anno 1 Hen. IV. p. 8. m. 20. Ibid. An. 1 Hen. V. p. 4. m. 12. Cotton's Abridgment of Records, p. 468, 475.—(*l*) Rot. Patent. An. 22 Edw. IV. p. 2. m. 11. The same year the parliament appropriated six thousand pounds out of the supply for the repair of decayed towns.—(*m*) Willis's Notitia Parliamentaria, vol. ii. p. 429, 430.

own contrivance (*n*). It was originally constructed, tho' at what time we know not, by weighing up vast rocks out of the sea with empty casks, which being placed in a regular order to a considerable breadth, and carried out a great way, some say more than three hundred yards, the interstices being filled up with earth, the heaviest carriages safely pass, and large buildings, amongst others an handsome custom-house upon pillars, with a corn-market under it, and warehouses, have been erected thereon (*o*). This singular work, which answers the intention of a pier, is called the Cobbe; and, for the keeping it in constant repair, which is done at the expense of the town, and proves sometimes very chargeable, there are annually chosen two Cobbe-wardens (*p*). The port it makes is safe and deep; the vessels, being defended from all winds, lie as quiet as in a basin. In Leland's time it was in a good condition; but Camden speaks of it contemptibly, and as serving only for fishing barks (*q*). The trade, however, revived in the reign of king James, and gradually increased, chiefly by the inhabitants falling into the principal management of the Newfoundland fishery (*r*). The unfortunate duke of Monmouth, having with him a frigate of thirty guns and two merchant ships landed here in 1685 (*s*). it suffered by the French war in the reign of queen Anne, but is recovered since, many handsome stone houses being lately built by merchants residing there (*o*); and might be rendered of much greater importance than it is, if any new manufacture could be introduced in the country behind it, which is certainly plentiful enough to admit not only of one, but of many improvements. It is not however unlikely, that if the inhabitants of this port recurred to that very art, from which, according to the best authorities, the town derived its existence, that is, the making of salt, it might very speedily and effectually answer their purpose: Since by the help of shallow marshes (into which the sea-water being admitted, the rest of the work would be easily performed by the heat of the sun, as it is done on the opposite coast of France (*u*);) as good salt as any might be

(*n*) Leland's Itinerary, vol. iii. fol. 43. Andrew Borde's Peregrinations in the Catalogue of Havens. Harrison's Description of Britain, chap. xii. p. 58. Camdeni Britannia, p. 154. Stukeley's Itinerarium Curiosum, p. 152.—(*o*) Coker's Survey of Dorsetshire, p. 11. Willis's Notitia Parliamentaria, vol. ii. p. 429. Atlas Maritimus et Commercialis, p. 12.—(*p*) Keble's Statutes, p. 913. Brome's Travels over England, Scotland, and Wales, p. 259. Cutler's Coasting Pilot, p. 12.—(*q*) Leland's Itinerary, vol. iii. fol. 43. Camdeni Britannia, p. 854. Harrison's description of Britain, chap. xii. p. 58.—(*r*) Coker's Survey of Dorsetshire, p. 11. Willis's Notitia Parliamentaria, vol. ii. p. 429. Atlas Maritimus et Commercialis, p. 12.—(*s*) See the Articles of Lyme in Collier's Geographical and Historical Dictionary. Stukeley's Itinerarium Curiosum, p. 152. Brome's Travels over England, Scotland, and Wales, p. 259.—(*t*) Willis's Notitia Parliamentaria, vol. ii. 429. Cutler's Coasting Pilot, p. 12. and all the modern Descriptions.—(*u*) Agricola de Re Metallica, lib. xii. Piganiol de la Force Nouvelle Description de la France, vol. iv. p. 242. Dictionnaire Universelle de Commerce, tom. iv. col. 727, 728, 729.

produced, for which this place seems to be exceedingly well situated, and to have very uncommon advantages, as their concern in the fisheries, would furnish an immediate market for all they could possibly make (*w*). Before we leave this subject it may not be amiss to mention, that notwithstanding modern as well as ancient writers speak of the construction of this port as something very singular and extraordinary, yet none have proposed the imitation of it; tho' there cannot be a more pregnant instance than this, of the possibility of making, tho' it may be in a better manner, a port on almost any part upon our coast, where the conveniency of the country required, or the opening such a port should appear the most probable means of improving it; one or other of which circumstances would turn such ports to the advantage of most of the maritime counties in this island.

THE eastern extremity of the coast of Dorsetshire is called Peverel Point, between which and another promontory lying to the north, called Handiaft Point, is included Sandwich Bay. To the northward of this there is another, which is larger, and esteemed a good road for ships, being safe from all but south and south-east winds, and the current setting out of the bay secures them in some measure from their effects; this is styled Studland Bay, the remotest headland of which extends to the mouth of the harbour of Pool (*x*). This tongue of land, is a long narrow promontory rising out of the isle of Purbeck, the termination of which is called South Haven Point. Opposite to this such another promontory, but not quite so long, shoots from the main land of Dorsetshire, the very end of which is termed north-Haven point (*y*). The entrance between these is about a quarter of a mile broad. Immediately within this lies Branksey, or Brunksey island, upon which there was formerly, and indeed there still is, a castle, but there are no guns; and to the south and west of this four others, two of which are distinguished by proper names, the one being called Furseys or Bursey, the other Saint Helen's island. On every side of these the sea forms a vast body of water, the coast round it, taking in all the indentures, was formerly computed at twenty miles, but being actually measured, has been found sixty-three, by which it is so well defended from all winds, and so much confined, that it is perfectly still and calm, and is thought from thence to derive its name; and on a peninsula in the north-east corner of this large bay stands the town of Poole, so denominated from the port (*z*).

(*w*) Brownrigg's Art of making common Salt, part i. chap. iv. p. 31. where the whole method is laid down with the utmost precision and perspicuity. In a fortnight's time, in a dry summer, they make as much salt in France as furnishes the whole consumption of the kingdom, and supplies foreign markets besides.—(*x*) Camdeni Britannia, p. 155. Lambard's Historical and Topographical Dictionary, p. 280. Speed's Theatre of the British Empire, fol. 17.—(*y*) Speed's Theatre of the British Empire, fol. 17. Broome's Travels thro' England, Scotland, and Wales, p. 259. Atlas Maritimus et Commercialis, p. 12.—(*z*) Leland's Itinerary, vol. iii. fol. 53. Harrison's Description of Britain, chap. xii. p. 58. Drayton's Polyolbion, song the second.

THERE have been some mistakes in the history of this port, which we will endeavour to remove. It was known to the Saxons, by the name of Fromouth; and one of oldest and most respectable of our histories acquaints us, that the Danes twice landed here, A.D. 998 and 1015, and from hence ravaged the county of Dorset (*a*). It was, in all probability, by these invasions that the place was in a manner destroyed, and, from a town of note, sunk into an Hamlet dependant upon the manor of Canford, which is the reason that it does not appear in domesday.

THIS manor seems, amongst many other large estates, to have been granted by William the conquerour to Walter de Ewrus, as the old writers call him or Walter de Eureux, Earl of Rosmar in Normandy. His son, Edward of Salusbury was possessed of it, as appears by the record of domesday, at the time of making that survey (*b*). His son Walter of Salusbury, was the founder of a priory of black-canons at Bradenstoke in the county of Wilts, to which he gave the church of St. James in Poole (*c*). Upon the dissolution of monasteries the patronage vested in the crown, and there remained till Charles the first granted it, in the ninth year of his reign, to the Countess of Anglesea, who conveyed it to Thomas Smithsby, of London, Esq; and, for one hundred pounds, it was conveyed by him, in trust for the inhabitants of the town of Poole. Patrick, the son of this Walter, was advanced to the dignity of Earl of Salusbury; and his son William, leaving only one daughter, Ela, she married William Longspe, natural son to King Henry the second by the famous Rosamond Clifford; from which William the inhabitants purchased the liberty of pasturing their tame cattle, and of taking fewel in his heaths and commons, which they enjoy at this day. This William had a son of the same name, from whom Henry the third took the earldom of Salusbury. He was the father of a third William, who, by Matilda daughter to Walter Baron Clifford, had an only child, Margaret his heiress.

THIS lady married Henry de Lacy Earl of Lincoln, by whom she had an only daughter Alice, born in 1281. Henry Earl of Lincoln died in 1312, possessed, by the courtesy of England, of the manor of Canford, which then devolved to Thomas Earl of

(*a*) Chron. Saxon. p. 129, 36, 146, 24. In the old Abbey Chronicles called in Latin Fromuda and Fromutha. The learned Baxter carries it yet higher, and asserts it to be the Bolnetaunium of the ancients.—(*b*) Liber Domesday, fol. 80. b. col. 1. Rogeri Hoveden Hist. fol. 436. Mat. Paris, p. 317.—(*c*) Ex Libro rubro in Scaccario, fol. 90. Wilts. Liber Lacokenfis, MS. fol. 18, 19. Efc. de Anno 15 Edw. III. n. 69.—(*d*) Rot. Fin. 41 Hen. III. iii. 9. Pat. 41 Hen. III. m. 15. Ex magno Registro in Officio Ducat. Lancast.

Lancaster, who had espoused his daughter Alice before-mentioned (e). This Thomas being beheaded at Pomfret, A. D. 1321, King Edward the second, having procured a resignation of this and other lands of her inheritance from his widow Alice, granted it, in the sixteenth year of his reign, to his favourite Hugo de Dispenser (f). He being beheaded, A. D. 1326, Edward the third granted, in the first year of his reign, the manor of Canford with Poole, to John Earl of Warren and Joane his wife for life, with remainder to the heirs of Thomas Earl of Lancaster. A. D. 1337 Edward the third granted the reversion of Canford with Poole to William Montacute Earl of Salisbury, who not surviving till the demise of John Earl of Warren, which happened A. D. 1347, a year before that of Alice Countess of Lincoln, it then came to William his son Earl of Salisbury (g). who in the forty-fifth of Edward the third, confirmed the grants of William de Longspe to the town of Poole. This William Earl of Salisbury died June 3, 1397, being the twentieth of Richard the second, seized of the manor of Canford and the borough of Poole, as appears by record (h). In this family it seems to have continued to the time of Thomas Montacute Earl of Salisbury, who deceased November the third 1428, being the seventh of King Henry the sixth.

Two years after, that young monarch made a grant of it to John Duke of Bedford, who dying without issue A. D. 1434, this manor reverted to the crown; and, in the seventeenth year of the same King, was sold to his other uncle Henry Beaufort cardinal and bishop of Winchester (i), who conveyed it to his kinsman John Duke of Somerset, and by the forfeiture of that family it came again to the crown. Edward the fourth granted it to his brother George Duke of Clarence; and by his attainder it seems to have been once more in the crown, and to have drawn the consideration of Richard the third who had some kind intentions towards the place. Henry the seventh, who seized it at his accession, bequeathed it by will to his mother Margaret Countess of Richmond, who died A. D. 1509. Henry the eighth bestowed it, in the seventeenth year of his reign, on his natural son Henry Fitzroy Duke of Richmond and Somerset, on whose demise it reverted again to the crown (i).

EDWARD the sixth, in the first year of his reign, granted Canford and Poole to his uncle the protector Duke of Somerset, and by his attainder they came again to the crown. Queen Mary, in the first year of her reign, bestowed them upon Gertrude

(e) Efc. 22 Edw. III. n. 34. Thom. Walsingham. Annal. p. 85. Monast. Anglicanum, tom. ii. p. 644. b.—(f) Claus. 16 Edw. II. m. 34. in Cedula. Cart. 16 Edw. II. n. 20.—(g) Pat. 11 Edw. III. p. 3. m. 19 Efc. 18 Edw. III. n. 51.—(h) Efc. 20 Ric. II. n. 25.—(i) Efc. 14 Hen. VI. n. 36. Rot. Pat. 17 Hen. VI. m. 2.

Marchioness of Exeter, mother to Edward Earl of Devonshire; which Gertrude, dying A. D. 1557, having out-lived her son, bequeathed the manor of Canford to her nephew James Blount Lord Mountjoy: But, as this was held in capite, he had only two thirds, and the other third went to Sir John Baker. Lord Mountjoy having passed his two thirds to the Earl of Huntingdon, he afterwards purchased Sir John Baker's interest. His lordship having alienated some parcels thereof, parted at length with the remainder, A. D. 1611, to John Webb of Odstock in the county of Wilts Esq; and it now belongs to his descendant Sir Thomas Webb baronet (*k*).

As to the port and corporation, records plainly prove both to have been more ancient than they are commonly esteemed, since, by an inquisition taken in the fifteenth of Edward the third (*l*), they are acknowledged such and admitted so to have been long before, and as such had sent members to a council, as it did to parliament in that reign (*m*). That it did not rise, as Leland supposes, through the misfortune of Wareham's losing its port, is very clear from hence, that in Edward the third's time it furnished more, and those too larger ships for the king's fleet than Wareham, whence we may presume it was in a better condition (*n*). Henry the sixth, upon the petition and by the advice of the commons in parliament, in the eleventh year of his reign, granted the mayor leave to wall the town, bestowed on it the same liberties with Southampton, and removed hither the port from Melcomb (*o*), which was confirmed by Edward the fourth (*p*). Richard the third, in whose hands it was, as is before shown, began to wall it round, and promised the inhabitants great favours; upon which Mr. Camden remarks, that tho' he was the worst of men, he was the best of kings (*q*). After this it must have sunk very low; for Leland tells us, that, in his time, there were people who remembered the greatest part of the town over-grown with sedge and rushes; whence he concludes, and his authority has misled others, that it could be of no great antiquity (*r*). But upon farther inquiry he received better lights, and candidly retracted his mistake (*s*); in which

(*k*) In the settling this History of the Manor of Chenesford, Kanesford, or Canford, I have been exceedingly obliged to a worthy person, Sir Peter Thompson Knt. who is perfectly versed in its antiquities, and who proposes to favour the public with a complete History of Poole.—(*l*) Efc. 15 Edw. III. n. 66.—(*m*) Willis's Notitia Parliamentaria, vol. ii. p. 410.—(*n*) See the Roll of King Edward's fleet, in Hackluyt's Voyages, vol. i. p. 119.—(*o*) Cotton's Abridgement of the records, p. 610. Coker's Survey of the County of Dorset, p. 119.—(*p*) Rot. Pat. Ann. 1 Edw. IV. p. 3. m. 23. n. 189.—(*q*) Camden's Britannia, p. 155.—(*r*) Leland's Itinerary, vol. iii. fol. 52, 53. It appears by a passage, vol. vii. fol. 69. he wrote his Itinerary in 1530: He published his poem on the birth of Prince Edward, A. D. 1543.—(*s*) Genethliacon, Edwardi Principis Cambriae. p. 27. Lambard's Historical and Topographical Dictionary, p. 280.

however he has not been followed. Camden speaks of it as declining in his time ; which is strange (*t*), since Queen Elizabeth, in the tenth year of her reign, made it a county of itself, granted the inhabitants power to choose a sheriff, with many other great immunities, reciting also the incorporation by the ancient kings of this realm, and confirming all their former privileges (*u*). In the reign of Charles the second it was in a very flourishing state (*v*), and has continued so ever since, as will appear from the following succinct account of the town, harbour, and trade of both.

POOLE stands upon a peninsula, about two miles in extent, at the north end of the bay, with which it is surrounded on all sides, except on the north-east, where it is connected to the continent of Dorsetshire by a narrow isthmus. It is a neat, compact, well-built town, the houses mostly of stone, much increased within these few years, containing now about five-hundred, and in them three thousand inhabitants. The parish-church is large, a royal peculiar, of which, as we have shown before, the inhabitants are patrons. Here is a town-house, custom-house, a convenient quay, and public warehouses. The bay furnishes them with fish in abundance, of different kinds, and more especially excellent oysters, with which the inhabitants supply all the adjacent country ; and besides send several vessels laden annually for the rivers and creeks in Essex and Kent, where they are laid to fatten, and then carried to the London market. Taking this therefore in all its branches, it will appear to be no inconsiderable fishery, in point either of extent or profit. There is a great resort to their markets and fairs, which will probably be very much augmented, when the turnpike roads now making are completely finished. The inhabitants will also reap from thence a farther benefit, by persons coming to bathe in the salt water, for which no place can be more proper, as there is a sufficient depth at all times, and as, from the large tract that it covers, it must be considerably stronger and warmer than it otherwise would be (*x*).

THE mouth of the harbour is about three miles south from Poole ; the depth there at high-water is about sixteen feet ; and when once ships are in, they ride in any of the branches of the bay as safely and commodiously as can be desired. This capacious haven lies in the midst between Purbee and the isle of

(*t*) Camdeni Britannia, p. 155. where he attributes it to some negligence or want of spirit and attention in the inhabitants. That this was really the case in the reign of King James I. appears from Coker's Survey of Dorset, p. 85.—(*u*) By Letters-Patent under the great-seal, dated June 23d 1567.—(*v*) Dr. Edward Chamberlayne's Present State of England, 1687, p. 247, 248. when the custom-house appointment consisted of three superiour, and sixteen inferiour officers, at four hundred and thirty-eight pounds per Annum.—(*x*) I was enabled to give this distinct account of the modern state of Poole, by the kind communications of a worthy gentleman, Dr. A. Campbell, who practises physic in the place.

Wight, and is said to enjoy one advantage beyond all other ports, perhaps, in Britain, which is that the sea ebbs and flows four times in twenty-four hours (y). First with a south-east and north-west moon; and then, by a south-and-by-east and a north-and-by-west moon; which second flood is generally supposed to arise from the return of the fore-ebb, which coming from Suffex coast between the isle of Wight and the continent of Hampshire, strikes in here, as lying in its way.

THE principal branch of the foreign commerce of its inhabitants is the Newfoundland fishery, to which they send every spring, in time of peace, upwards of seventy sail of vessels, from the burden of one hundred to two hundred and fifty tons, laden with provisions, nets, cordage, sail-cloth, and all sorts of wearing apparel, with variety of other commodities, for the consumption of the inhabitants and their servants. The smaller vessels fish on the banks, and make two or three trips every season. Their returns are in cod, oil, skins and furs: and in autumn they export their fish to Spain, Italy, and Portugal. This is a trade not more profitable to those concerned, than beneficial in general to those of the kingdom, as it subsists a prodigious number of hands, occasions a great export of our commodities and manufactures, and breeds excellent seamen. Besides this they employ some ships in the Carolina trade, for which Poole is very conveniently situated, lying directly in the way to Holland and Hamburgh, the port-charges, labour in shipping and reshipping the rice, being but insignificant. They send also two vessels annually to Guinea, and twice as many to the West Indies. Their coast trade to London and Newcastle is to a large amount, by which they export great quantities of corn, and by their returns supply the consumption of Blandford, Ringwood, and many other adjacent places. There are in the whole about two hundred vessels of various sizes belonging to this harbour (z). In time of war they have hitherto suffered extremely, and as this is exceedingly detrimental to a trade which is so apparently serviceable to the royal navy, it deserves notice, and, in consequence of that, no doubt, will obtain the most immediate redress and effectual protection.

POOLE is the port of this county, of which Lyme is a member, having the creeks of Bridport and Charmouth under its jurisdiction. Weymouth is also a member, with the creeks of Portland and Lulworth; and the creeks of Swanidge and Wareham, once a good haven, and then a flourishing place, are the creeks which depend immediately upon Poole. (a).

(y) Childrey's *Britannia Baconica*, p. 85.—(z) Stat. 29 Geo. II. p. 263, et seq. effectually provides for the maintenance and preservation of this harbour, and as effectually establishes the rights and prerogatives of the corporation.—(a) Molloy de Jure Maritimo et Navali, p. 327. Crouch's *View of the British Customs*, p. 385. Beawes's *Merchant's Directory*, p. 145.

THE county of Southampton enjoys every advantage that can well be desired in any country. The air in the northern parts is wonderfully pure, milder and warmer towards the sea, and every-where pleasant and wholesome. The soil is rich and fertile, and the situation in all respects suited alike to pleasure and to profit (*b*). These circumstances will easily account for a remark that some judicious persons have made, as to its having been always crowded with inhabitants (*c*). A very inquisitive and ingenious antiquary is of opinion, that it was very fully peopled by the Albionites, as he styles them, who were invaded, subdued or exterminated by the Belgæ (*d*), before the coming over of the Romans. That mighty nation, in the reign of the emperor Claudius, intending an absolute conquest of Britain, made their first descent in these parts; and being once become masters, showed a great regard for, and exercised amazing labour, skill, and industry in, the improvement of this beautiful province (*e*). The Saxons have left very noble marks of their having a like attention to what in their language they styled Hamtunscyre (*f*), of which we should have been more sensible, if many of their towns had not been ruined by the Danes, or if the Norman conqueror, whether out of pride or policy, or from both, had not levelled such a number of villages to make his new forest, and showed the true spirit of his government, in subverting the habitations of men to provide a receptacle for wild beasts (*g*). But notwithstanding all these devastations, there still remain so many good towns, magnificent churches, venerable abbeys, strong castles, and stately palaces, of ancient erection, as abundantly demonstrate the wealth of its inhabitants in former times, and the peculiar affection of its civilized masters.

THIS spacious and excellent country is admirably intermixed throughout with high lands of gentle ascent, fruitful plains, fine rivers, and whatever else can contribute to opulence or delight. Its commodities are equally numerous and valuable. On its coasts copperas stones are found in great plenty, which,

(*b*) Camdeni Britannia, p. 187. Speed's Theatre of the British Empire, fol. 13. Fuller's Worthies in Hantshire, p. 1.—(*c*) Salmon's New Survey of England, vol. ii. p. 768. where he very justly observes, that if the Belgæ had not been more numerous than the original natives, they must soon have been driven out of their conquests, and forced to quit the island.—(*d*) Camdeni Britannia, p. 160. Musgravii Belgium Britannicum, cap. ix. Stukeley's Itinerarium Curiosum, p. 181.—(*e*) Salmon's New Survey of England, vol. ii. p. 767.—(*f*) Chronicon Saxonum, p. 56, 28, 78, 8, 85, 8. which is the true name. It is remarkable that in this county there were no less than forty hundreds; whereas, in Warwickshire, which is more than half as big, there were but four, or, in including the liberty of Coventry, at most but five. As hundreds were divisions founded in the number of families, so by comparing these with the territory that contained them, we may judge of the proportion, comparatively at least, in which they were peopled.—(*g*) Gulielm Malmisburiens. Histor. lib. iii. Gualterus Mapæus, apud Camdeni Britanniam, p. 188. Robert of Gloucester's Chronicle, p. 375.

if the inhabitants were not better employed, might turn to account (*h*). In the bowels of the earth, and even under the bed of the sea, stones which hold the most profitable iron ore are to be obtained (*i*). It was heretofore justly celebrated for its timber, which, tho' much decreased, is yet far from being exhausted; and the stock of which might be easily recruited and augmented, not more to the advantage of Hampshire in particular, than to the benefit of the nation in general (*k*). Fertile in all kinds of grain, but more especially famous for fine wheat, as well as for admirable hops (*l*). Well furnished with black cattle; abounding in sheep, and consequently in wool; to say nothing of bacon and honey, reputed the best in the kingdom; tho' that which is made near Heaths is commonly excepted, to the wax of which, notwithstanding, there can be no objection; and yet this certainly is an article that deserves notice (*m*). The size of this county is likewise worth regarding, since it contains about a million of acres, exclusive of the Isle of Wight; so that it is larger than the dutchy of Juliers, twice as big as that of Mantua, and containing thrice as much land as the island of Minorca (*n*). Inferiour certainly to none of these even in its present productions, and, as we shall take occasion to show, still less so in respect to its capacity of admitting further improvements. It will however be proper to observe first what has been done in this respect already.

THE making salt, by boiling of sea-water, was performed to great profit and perfection at Lymington and in Portsea Island; but is said to have declined in some measure by the exportation of the Cheshire fossile-salt, brought to, then boiled at, and after all shipped from Liverpool (*o*). Large quantities of malt are made at Andover and Basingstoke. Silk stockings and leather are the support of the inhabitants of Ringwood. Narrow cloths, druggets, and shalloons, are wrought in many places, broad-cloth at Rumsley. There is a very considerable number of wheelwrights, and other mechanics, who work in timber at

(*h*) Philosophical Transactions of the Royal Society. No. cxlii. p. 1056. communicated by Daniel Colwall, Esq.—(*i*) Yarranton's England's Improvement, p. 41. which if the curious reader consults he will find many things worthy of notice.—(*k*) Samuel Hartlib's Legacy in Husbandry, p. 58. et seq. Evelyn's Silva, or a Discourse on Forest-trees, chap. vii. Proposal for improving and adorning the island of Great Britain, &c. by parochial plantations of timber and other trees, by Edward Wade, Esq; p. 13.—(*l*) Those in the parish of Crundal, have been esteemed as fine as any in this kingdom, and immense quantities are made in favourable seasons there, and in other parts of the county.—(*m*) Fuller's Worthies in Hantsire, p. 2. See the article of Hampshire, in Collier's Historical and Geographical Dictionary. Samuel Hartlib's Legacy on Husbandry, p. 63.—(*n*) Templeman's Survey of the Globe, Pl. i, ix, xiii, xxxv.—(*o*) Childrey's Britannia Baconica, p. 50. Atlas Maritimus et Commercialis, p. 12. Brownrigg's Art of making salt, p. 88, 124, 126, 129, 131, 166, 167, 269.—(*p*) All the modern descriptions will justify what is said in the text; and I have reason to think, on a strict survey, we might find many more; what is inserted being intended as little more than a specimen only.

Stockbridge. However ship-building was and is the capital manufacture of this county, and employs multitudes at Southampton, Lymington, Portsmouth, Bursledon, and Redbridge (*q*). The great demand, more especially in time of war, for provisions of all kinds at Portsmouth, is a constant source of wealth to the industrious farmers in Hampshire (*r*), who likewise vend vast quantities of grain and hops at the fairs in, and upon, the edge of the county, besides what are weekly carried to Farnham market, formerly one of the most considerable in the kingdom (*s*).

If any-where in Britain, one would imagine that in this county a fair experiment might be tried as to the possibility of cultivating olive trees; which, notwithstanding the doubts of some and those too able judges, would perhaps be found more practicable than is generally apprehended (*t*). But if upon such an experiment, which might be easily made in some convenient place, at a small distance from the sea, with a just exposition, and under proper shelter, it should nevertheless fail, then let me have leave to mention the beech. This tree grows no-where to a larger size, and in higher perfection, than in Hampshire (*u*), and therefore immense quantities of mast, in favourable seasons especially, might be collected, which yields excellent oil, fit for all purposes, and that would be a great saving to the nation (*w*). It is very possible that the benefits which would accrue from hence were over-valued, in the proposals which were offered upon this subject near forty years ago; but because it was once exaggerated, or the proposition perhaps came out in an unhappy year, it by no means follows that this improvement is absolutely chimerical, or that no attempt towards an improvement of this kind should be again made (*x*).

(*q*) If we may rely on what Capt. Yarranton asserts, things may be still carried much farther, by establishing a royal yard for building fifth and sixth rate ships at Christ-church.—(*r*) Whoever considers the prodigious quantities of timber that have been, and may be continually produced in this county; the convenience of bringing it by water to the very docks; the numbers employed there, and the provisions requisite for their subsistence; will have a competent idea of the importance of Hampshire, and of the additional advantages of which it is capable.—(*s*) Markets frequently vary; and from being inconsiderable, grow to a vast height, and sometimes decline again in the same age, without any real or extraordinary change in the quantity of commodities, which alterations spring only from various accidents that happen in their manner of carriage.—(*t*) This was the notion of a person of great rank, who had a seat in this county, and superiour skill in whatever related to agriculture, gardening, or planting.—(*u*) Woolridge's *System of Husbandry*, p. 92. Mortimer's *Art of Husbandry*, vol. ii. p. 26. Stukeley's *Itinerarium Curiosum*, p. 169, 170, 171.—(*w*) Great quantities of this oil are actually made and used in several parts of France and Switzerland, where oil of olives is much cheaper than here. And if there, with this circumstance, why not in England?—(*x*) The late ingenious Aaron Hill, Esq; wrote a treatise on this subject, in which there are many curious and useful observations: But beech-mast-oil being the title of a Bubble in 1720, has (tho' sure that is no just reason) never been esteemed worthy of the least notice since.

WE may speak with somewhat more confidence as to the raising vineyards, since Hampshire does not lie above three degrees to the north of those countries which produce the finest wines in France; and we bring many fruits that are natives of warmer climates than those to great perfection (*y*). But certainly if we would be content with wines of another kind, we might have them as good as any in the Palatinate (*z*). Besides, we know by experience, that is, from written experience, record and history, that we have had wines in England, in different places, and in large quantities (*a*). The reason of mentioning them so particularly in this place is, from the prevailing opinion, that when the emperor Probus licensed the cultivation of vineyards, they were first planted in this county, at a place which still bears the name of *THE VINE* (*b*). I will venture to suggest what has occurred to me upon this subject, tho' it should make the reader smile (*c*). If our wines in Hampshire may not reach that perfection, which is requisite to please our palates, or becomes fashionable here, they might possibly be exported with great profit to our plantations, and derive from their passage into warmer climates that excellence which cultivation could not give: And this, perhaps, may also make them worth sending home again; nor would the accumulation of freight render them dearer then to the consumer, than the duties that are now laid upon wines of foreign growth (*d*).

THERE is yet another improvement that might with still greater probability be attempted, and, if properly conducted, I dare affirm may be accomplished also in this county; and that is, the introduction of that useful tree the white mulberry, which the ingenious and judicious Evelyn, whose writings ought to recommend him to the veneration of his countrymen, assures us may be readily propagated, and cultivated with equal facility, and

(*y*) The Peach, which, in the time of Galen, was thought too tender for the air of Italy, grows all over England, and, properly cultivated, to great perfection. The myrtle, brought from Greece, flourishes in Cornwall, Devonshire, and the Isle of Wight, without care. The common potatoe came from Mexico, and yet thrives in every part of the three kingdoms.—(*z*) The dutchies of Juliers and Bergues, and the whole Palatinate, lie nearly in the same climate with Hampshire, and the soil of these countries is not unlike.—(*a*) That wine was made in Essex before the conquest we have the express testimony of the Domesday Record. As to Gloucestershire, William of Malmesbury informs us, that the wines, on his own experience, made there, were superiour to all other English wines, and little inferiour to the French. The wines made in the parks of Windsor Castle were of considerable value, and tythes were paid for them to the abbot of Waltham. Besides these, we could produce proofs as to a great many other places.—(*b*) Camdeni Britannia, p. 194. In his time it was the seat of Lord Sandes; it now belongs to the family of Chute.—(*c*) Whoever considers the great improvement of malt liquors by short voyages; of claret carried to the East-Indies; and of madeira by going either to the East or West-Indies before it is brought hither, will perhaps see no cause to smile.—(*d*) Whatever loss the revenue might suffer in the customs, would, in the same proportion, and in the same space of time, be recovered in the excise, from the number of persons that must necessarily be employed in the cultivation of the proposed vineyards.

in every respect with as much success here, as in any other part of Europe (*e*). If this, which is so easy, were effectually done, and the making of silk vigorously carried on, it would unquestionably prove the most important acquisition this nation has ever seen; for in Piedmont the leaves of every tree in full growth are certainly worth twenty shillings a year (*f*), many say three or four times that sum.

THERE is a circumstance which, at this juncture, renders the experiment most evidently worth making, because it would provide at once for all the children which the public maintains in the Foundling Hospital; since from the moment this design was brought to perfection, it would enable those who were fit to be employed therein, to get not only a competent livelihood for themselves, but for the rest likewise (*g*). It would also undoubtedly afford a comfortable subsistence, without any hard working, to aged and infirm persons of both sexes, and prove thereby a great relief to the county (*h*). Many of those worthy persons who have so steadily and honourably employed their time, and taken such laudable pains in the management of that useful charity, are very competent judges of the propriety of this proposal; and would, I am persuaded, exert themselves in carrying such an undertaking (if it appeared feasible) into execution; and considering the reasonable hope we might entertain of the blessing of providence on so good a work, under their prudent and disinterested conduct, I cannot help flattering myself it would effectually succeed (*i*). The Crown, no doubt, would graciously bestow land in New Forest sufficient for the establishment and immediate support of a manufacture in its nature so truly glorious, and which, at the same time, would become so speedily and so highly beneficial to the nation. The trial might be quickly made, and at a very small expense, indeed at no

(*e*) See the proclamation of king James the first, with the advice of his council, dated November 16th, in the sixth year of his reign. Samuel Hartlib's Legacy of Husbandry, p. 69, 70. Evelyn's Silva, or a Discourse on Forest-trees, Book ii. chap. 1.—(*f*) Joshua Gee's Trade and Navigation of Great-Britain considered, chap. xxx. His Sardinian Majesty draws two hundred thousand pounds per annum from us in ready money for silk; having laid such duties on our commodities as amount to a prohibition; and large sums from the Dutch and other nations. Piedmont is not five times as large as Hampshire.—(*g*) This circumstance deserves to be particularly regarded, for, on the one hand, as the taking care of deserted infants is a very wise and well instituted charity, so, on the other, the putting them in a way, as soon as possible, of effectually providing for themselves, is a piece of justice due to the people at whose expense, a great part of which arises from their labour, these unhappy orphans have hitherto been, and are still supported.—(*h*) The great advantage of this manufacture is, that man, woman, or child, may work at it, and be fully instructed in a day as to what they are to perform.—(*i*) The having the weight of such a body of public-spirited respectable and judicious persons as have the conduct of this charity; the interest of the whole county of Southampton, founded on the apparent advantages arising from it to themselves; together with the countenance and reasonable assistance of the legislature; are circumstances which ought to banish despair.

expense at all; for if the scheme, upon such a trial, should be found clogged with insuperable, tho' unforeseen difficulties, the white mulberry is an excellent kind of timber, fit for a vast variety of uses; and, particularly in ship-building, is very little inferior to oak (*k*).

IN order, however, to prevent delay, to bring the matter to the test at once, without risk or charge to the public, another method may be proposed, which is this. If the legislature offered a bounty of one hundred thousand pounds to any Society who should establish the manufacture, upon finding security, when so established, to take and maintain such a settled number of children annually, as the Foundling Charity should send, above a fixed age, for the space of seven or fourteen years, the largeness of the sum would probably excite an experiment; and if the design was brought to bear, the undertakers would have a noble reward, the public an excellent, that is, a very cheap bargain, and the nation inexpressible benefit (*l*). On the whole, this most plainly appears to be an improvement of much too great consequence to be overlooked; much better supported, than to be accounted a commercial chimera; and much more easily tried, than to be rejected without experiment by a wise nation: I will go farther, and add, a nation which has hardly attempted the introduction of any improvement with spirit and steadiness, in which she has not succeeded; of which, if it was not altogether unnecessary, many instances might be without difficulty produced.

BUT I have been positive she may accomplish this.—I repeat it—Let the judicious reader consider.

IN point of fact; some quantities of good silk, but with much trouble, have been lately made in the dominions of the king of Denmark, and also in the province of Scania in Sweden. Before the war, several hundred-weight was raised annually about Berlin. A much larger quantity in the neighbourhood of Dresden, and in other parts of Saxony (*m*). Why not in England? It will be said, that for curiosity it has been and may still be made. I say so too; and will likewise add, has been made to as great profit, and with as little trouble, as any-where in Europe; and for this I can

(*k*) Evelyn's *Silva*, or Discourse of Forest-trees, Book. ii. Chap. ii. p. 110. Worlidge's *System of Husbandry*, p. 115. Mortimer's whole Art of Husbandry, vol. ii. chap. xi. p. 35. If the trees were reserved to the crown, and, after thirty-one years, a rent imposed of cultivating in an adjacent part of the forest a certain quantity of oak-timber, it would be a vast advantage to the public, and make this forest of much more use, than, in spite of the laws for that purpose, it ever hitherto has been.—(*l*) Either of these methods would effectually determine the point, in the space of ten or a dozen years at farthest.—(*m*) If it has not succeeded, or should not succeed in these countries, that failure arises from causes that do not subsist here, and consequently proves nothing against our success.

bring indubitable proofs (*n*). Farther still; this silk made here, not forty years ago, was as good in quality as the Piedmontese (*o*); and we have now two engines, one at Derby, the other at Sherborne, where this silk might be converted into organzine, or rather organcine (*p*). This county, though but a fifth of Piedmont in point of size, yet from the circumstance of its having so large a forest, one fourth of which might well be thus applied, may, in this light, be considered as equal at least to a third part of what is there appropriated to the cultivation of mulberries; and as we take a third part of their silk, so, from these premises, it will appear no improbable expectation, that we may, even in Hampshire, make as much of that commodity as costs us at present two hundred thousand pounds annually, and more (*q*). But some will yet ask, could we make silk as cheap? If the crown furnishes the land in New Forest, the trees will cost nothing: If children, infirm and old people, whom the public already maintain, can manage it, the labour will cost nothing (*r*). Is not this working cheap? We may lose our foreign trade in silk, and this will prejudice our navigation. No such thing; it will increase both. We can never hope to make more than will suffice for the warp of our manufactures; in which, from the dearth chiefly of the Piedmontese organcine, we are at present cramped; and the having this, would enable us to employ, and consequently induce us to import, immense quantities of China and Levant silk for woof, which would augment our India, and revive our Turkey trade (*s*). But would not this discourage our colonies in raising silk? The very reverse. They would probably double their endeavours upon this; and, being sure of a market for all they could make,

(*n*) Philosophical Transactions of the Royal Society, no. cxxxiii. Dr. Beal, a very ingenious worthy clergyman, the HALES of those times, affirms, that before A. D. 1677, silkworms had been tried in the county of Huntingdon, and in the north of Cheshire, in England, as also in the county of Cavan in the province of Ulster, in Ireland, and did perfectly well: They made mittens, stockings, and waistcoats, but failed thro' want of mulberry trees.—(*o*) Philosophical Transactions of the Royal Society, no. cclxii. Mr. Henry Barham acquaints Sir Hans Sloane, that in the months of May, June, and July, 1719, he had made with much ease, at Chelsea, as good silk, in the judgment of the dealers in the commodity, as any from Piedmont. He says further, that the worms produced from an ounce of eggs will make fifteen pounds of fine silk, which is twice as much as they make in Languedoc and Provence, and more than they make even in Calabria, where the worm is stronger than in any part of Italy. He adds, experience has taught him that we may have silkworms twice a year, and that the mulberry will bear leaves twice without prejudice to trees or fruit.—

(*p*) This is another advantage we had not formerly, and, as the invention was purchased very wisely by the public, we consequently may have many of them.

—(*q*) The king of Sardinia is a wise and good prince; yet he compels us to purchase silk, and takes cloth from the French; not that he either hates us, or has any predilection for them, but because he loves his own subjects better than either. In this he is certainly right, and tho' we cannot have his silk without parting with our silver, yet, from his example, we may learn a lesson worth them both——To study our own interest, and improve our own country.

—(*r*) This is another advantage; as from being a burden upon, it makes these (otherwise helpless persons) become a great benefit to the public.—(*s*) The reader will observe China silk is much cheaper than the Piedmont, and the Levant silk is purchased with our own commodities and manufactures.

do their utmost, that in time they may undersell the Chinese and Turks : And as our silk manufactures, or rather manufactures made of silk, are already esteemed, even in Italy, except as to cheapness, the very best in Europe (*t*), we should, in the next century, become as fully possessed of this, as ever we were of the woollen manufacture.

WHEN the candid and judicious reader shall have maturely weighed the arguments, facts, and authorities, which, in as narrow a compass as it is possible, have been laid before him, I persuade myself he will join with me in wishing, that, upon such evidence of probability, some effectual trial may be made whether this great improvement might not be prosecuted with success; and in the mean time, I protest against inattention and indolence urging the neglect, or even the delay, of this trial, as proofs of my being a false prophet. Reflect on our slowness, errors, and political mistakes, in regard to our natural staple, wool : Remember how lately, and, except in Ireland, with what difficulty, any encouragements have been procured for linen, which might be as much our own; and then a right judgment may be formed as to silk. These are things of a public nature, which, by supplying employment and subsistence to many, would augment our numbers, and render our people, however numerous, happy (*u*). Party or partial views have no room in such proposals; since it is evident that if all, or any of these improvements should be introduced, and found to thrive here, they could not long be confined to Hampshire : But it is of great consequence, that they should be begun where they are most likely to succeed, and where they would best deserve that encouragement, which it would be equally necessary and expedient for the public to give.

IN the former chapter we have spoken of all the harbours in this county except Portsmouth, which was reserved for this place. The Romans are believed to have bestowed a name on this harbour, which many of our most learned antiquaries (though some are of another opinion) take to be the *Portus Magnus* of Ptolemy, or *Portus Adurni*, or *Madurni*, of the *Notitia* (*w*). But then the town to which the harbour belonged was not Portsmouth, but *Caer Peris*, or *Port Chiefter*, standing on the main land a little to the west of Portsmouth, which was anciently a very remarkable and very strong place,

(*t*) If this fact is disputed, any intelligent person, who has been in Italy, will give testimony for me, that to put off their own goods, the natives call them English.—(*u*) It was against the popular opinion, and, which is much more, against the sentiments of some very able men, that silk was, by that incomparable monarch Henry IV. introduced into France by a kind of force; and was, after all, not brought to that state of perfection in which it now stands but thro' the indefatigable attention of Colbert supported by the irresistible power of Lewis the XIV. So regardless are a people under despotic government of their own interests.—(*w*) *Camdeni Britannia*, p. 193. *Lambard's Historical and Topographical Dictionary*, p. 268. *Baxteri Glossarium Antiquitatum Britannicarum*, p. 198.

undoubtedly Roman, and in far later times a parliamentary borough. But being gradually left by the sea has been long, declining, having nothing to distinguish it but an old castle built for its defence, when it was of greater consequence than it is now (x). On the East side of the harbour lies the island of Portsea, about fourteen miles in compass, fertile in corn, and very pleasant, surrounded at high-water on all sides by the sea; but united to the continent at the northern extremity by Portbridge, which was formerly defended by a fortress. (y).

At the south-west extremity of the island stands the town of Portsmouth, supposed to receive its name from Port, a famous Saxon chieftain, who, A. D. 501, landed here with his two sons (a). It made a considerable figure in the time of the Saxons; and from the utility of its situation, was highly favoured by all our monarchs of the Norman line; was incorporated, and became also a parliamentary borough (a). In the reign of Edward the third it was in a very flourishing state; but, A. D. 1338, in the very same reign, was burned by the French, when that monarch, which was afterwards ratified by king Richard the second, forgave the inhabitants a debt, and remitted their see-farm for ten years, within which space they so recovered themselves as to equip a squadron, which sailed into the mouth of the Seign, sunk two ships, and brought away a great booty (b). The singular excellence of its port, and the convenience of fitting out fleets from thence in the time of a French war, induced Edward the fourth to think of fortifying it, as he actually, in some measure, did; which fortifications were farther carried on by Richard the third. But king Henry the seventh was the first who settled a garrison therein; which was increased, and the place made still stronger, in the reign of Henry the eighth, who had a great dock there, wherein was built the *Henry Grace de Dieu*, which was the largest ship in the navy of his time. The same monarch remarkably at-

(x) *Nennii Historia Britonum*, apud *Galei Script.* vol. i. p. 115. *Lelandi Collectanea*, tom. ii. p. 26, 43. *Browne Willis's Notitia Parliamentaria*, vol. i. in his Preface, p. 37.—(y) *Leland's Itinerary*, vol. iii. fol. 82. *Collins's Discourse on salt and fishery*, p. 69. However custom may reconcile us to it, Portsea island is a pleonasm, for, in the Saxon, Portsea signifies the island of Port. Baxter derides the story of port, and treats the Saxon history as uncertain and confused. But when we consider Portland, Portsea, Portsmouth, Portdown, &c. they plainly confirm what the Saxon Chronicle and all our ancient writers assert, that they derived these names from the Saxon captain, who, landing here with his forces, settled and possessed all these places and the country adjacent.—(z) *Chronicon Saxonicum*, p. 17, 23, 209, 33, 218, 40. *Robert of Gloucester's Chronicle*, p. 164, 227. *Lambardes Historical and Topographical Dictionary*, p. 268, 269.—(a) *Trivet's Annales*, tom. i. p. 279, 282. *Lelandi Collectanea*, v. l. ii. p. 43, 292. *Cotton's Abridgment of the Records*, p. 20. *Lambardes Historical and Topographical Dictionary*, p. 268. *Willis's Notitia Parliamentaria*, vol. i. p. 82. in the Preface (b). See the Roll of king Edward's fleet in *Hackluyt*, vol. i. p. 119. *Walteri Hemingford Chronicon*, p. 282. *Mag. Rot. 2. R. II. Suthamtesline*, m. 2. where it appears he only confirmed his grandfather's remission.

attentive to the security of all maritime places, built what is now called South-Sea Castle, for the protection of this (c). The improvements made here in the reign of queen Elizabeth were much superiour to all these. King Charles the second, after his restoration, directed great alterations, established new docks and yards, raised several forts, and fortified them after the modern manner; which works were augmented under his brother's reign (d). Notwithstanding this, king William directed likewise fresh alterations and additions; and succeeding princes, following his example, have, at a large expence, extended these fortifications, and taken in a vast deal of ground; so that it is at present, as the importance of the place deserves, the most regular fortress in Britain; and, as it cannot be effectually attacked by sea, may be justly esteemed impregnable (e).

THIS haven is so well known as to require no particular description in a work of this kind: Yet from its excellency, and that we may justify what has been advanced in regard to the superiority of some of our ports; we will examine it by the characteristics of a proper harbour, laid down from the ablest writers on naval affairs; premising, that they give these only as ideal marks of what, according to their conceptions, should belong to a place deserving that title, and that the comparative value of those that really exist, may be the better understood (f). The first then is, that it be so situated, and of such a figure, as to be secure from all, or at least from most winds (g). The harbour of Portsmouth is so covered by the towns of Portsmouth and Gosport, the common, the block-house, gun-wharf, dock-yard, plantations, and the high hill of Portsdown, that the wind cannot blow from any point of the compass to the detriment of ships at anchor therein. The second rule is, that it be of a proper depth, so that ships of any size may lie securely without raking their bottoms (h). This port is so deep that a first rate can ride at the lowest ebb without touching the ground; and as she lies at anchor, she can take in her sea-stores and guns, and be at sea in half an hour.

THE third is, that the bottom be sound and fit for anchorage (i). In respect to this, no harbour can more exactly answer

(c) Leland's Itinerary, vol. iii. fol. 80. Stukeley's Itinerarium Curiosum, p. 186.—(d) Camdeni Britannia, p. 193. Additions to the English Translation of Camden's Britannia. Atlas Maritimus et Commercialis, p. 12.—(e) Stukeley's Itinerarium Curiosum, p. 186, 187. and all the modern descriptions of this celebrated place, not excepting those of the French writers.—(f) Joan Bapt. Riccioli Geographia, & Hydrographia, lib. xii. in Folio, Bononiae 1661. Ruberto Dudley del Arcano del Mare, &c. Firenze, 2 tom. 1630, 1646. Bernardi Vareni Geographia generalis, in qua Affectiones generales Telluris explicantur, ed ita et illustrata ab H. Newton, Octavo, Cantabrigiae 1672.—(g) Hydrographia du P. Fournier, liv. iii. chap. 3. p. 47.—(h) Finkleri Quadripartita Manductio, p. 40.—(i) Georgii Hornii Dissertationes Historicae et Politicae, Dissert. x, p. 64.

the description than that of Portsmouth. The next requires that there be no hidden rocks, shelves, sands, or other troublesome impediments (*k*). From all these this haven is intirely exempt. The fifth demands that it should be capacious, so as to hold a large number of ships with ease and safety; and, if possible, divided into several branches (*l*). This noble port is so spacious, that it can conveniently contain the whole royal navy, or at least as great a part thereof as is ever laid up in ordinary. The main harbour runs up directly two miles in length from south to north, and then separates into two branches, one running north-north-west, and the other north-east, each of them nearly of the same extent.

THE sixth requisite is, that there be no bars or other obstructions to embarrass its entrance, and which may render the access difficult or dangerous (*m*). Portsmouth harbour is not broader at the mouth than the Thames at Westminster; and as the water flows seven, and ebbs but five hours, the flux is greater out than in, so that the bottom is always scouring, and the water running out at an angle throws the bar to the south-west, which is called the SPIT, and leaves a deep chanel, close under shore, to South-sea castle. The next demands, that the sides, or the mouth, be well protected by forts, blockhouses, and other fortifications, more especially if it be seated immediately upon the sea (*n*). There is scarce any thing in this respect wanting that could be wished at Portsmouth; for if attacked by sea, the enemies ships must come directly under South-sea castle, and be afterwards exposed to a long train of cannon from the town and the block-house, which must rake them fore and aft, for a mile together, before they reach the haven's mouth; and when stopped there, liable to their accumulated and constant fire. The eighth is, that it have a pharos or light-house, or other conspicuous sea-marks (*o*). Portsmouth is as much distinguished in this as in any of the other particulars.

THE ninth position is, that there be an arsenal for building and repairing ships, commodious in all respects, and more especially for launching them (*p*). The yard of Portsmouth is so convenient that it has scarce its equal. Here are four docks, one of them so large as to admit two capital ships at a time; so that five may be docked and cleaned in a day while the spring tides continue; that is, between forty and fifty in a month; and the improvements made here for setting of masts, and rigging with the utmost dispatch, are such as would demand a long description. The next is, that there be plenty of naval stores,

(*k*) Hydrographie du P. Fournier, liv. ii. chap. 3. p. 47.—(*l*) Finckleri Quadrupartita Manuductio, p. 40.—(*m*) Hydrographie du P. Fournier, liv. ii. chap. 3. p. 40.—(*n*) Georgii Hornii Dissertationes Historicae et Politicae, Dissert. x. p. 65.—(*o*) Hydrographie du P. Fournier, liv. ii. chap. 3. p. 40. Finckleri Quadrupartita Manuductio, p. 40.—(*p*) Georgii Hornii Dissertationes Historicae et Politicae, Dissert. x. p. 65.



